# Common vulval conditions

**Louise Browne:** Hi everybody. My name's Louise Browne. I manage the health professional education programs at Jean Hailes and we're really excited to present our first webinar for 2018. Firstly, I'd like to start by acknowledging the traditional owners, the custodians of the land we're presenting on, and the lands we're reaching tonight, and pay respects to Elders past, present, and future. For those of you who don't know, Jean Hailes for Women's Health is a national not-for-profit organisation dedicated to improving the knowledge of women's health by combining research, clinical care, and practical education for women and health professionals. We've had a huge number of registrations tonight, over 1600, which is fabulous, our biggest ever. And at the moment we have hundreds of people online. So, welcome everybody. We're talking about vulval conditions tonight, and please keep in mind that we can only focus on a couple of the most important or the most common conditions, and ones that might be overlooked as well, as that's all we've got time for in this format.

We may have to do a vulval 'part two', so stand by for that. You can see the agenda on the bottom of your screen on the player page. You can submit questions, you've already heard in the video, by the 'ask a question' button on the right hand side. We've had lots and lots of questions, so unfortunately we might not be able to get through all your questions. Please don't keep putting them in, because we have to sift through them. So if you've sent it once we've seen it, we'll try and get to it when we can. If you have technical problems, please use the number on the player page. You can call that and the Redback team will help you out. Don't submit it as a question. For those of you who haven't done one of our webinars before, welcome. We've got lots of new people tonight.

If you're using an iPhone, it's not ideal, and you will only see the video, you won't see the slides. You can print the slides out. There's a 'resource library' tab and you can print the slides. We also emailed them to you today. And in the resource folder you'll find the pre-reading and some other useful resources, and you can download those later on before the end of the webinar. After the webinar closes, the resources aren't available or accessible, but next week, once the webinar's in our Jean Hailes webinar library, you'll be able to go and print them there. We'll send you an email when it's ready to view. So if you want RACGP points for this, or a certificate, for those of you who are not GPs, you need to fill in the evaluation at the end of the webinar, and the link will come up on the screen after we close.

So I'd like to introduce you to our fantastic panel tonight. We've got Dr Tanja Bohl, who's a dermatologist at Jean Hailes, she specialises in vulval conditions. We have Dr Kathryn Cook on the far side, who's an obstetrician, gynaecologist and a sexual health physician, and she's the current president of the Australian and New Zealand Vulvovaginal Society. Dr Karen Berzins, next to Kathy, is a sexual health physician at the Melbourne Sexual Health Centre and Mercy Hospital for Women where she works with Kathryn. We also have on the panel Dr Elizabeth Farrell who's a Jean Hailes gynaecologist, who's going to facilitate our discussion tonight. So we've got an amazing panel, and I welcome our panellists as well. So tonight is the largest webinar we've ever had. And I think it's really worth addressing, why is that? Why is this such a popular topic? I know, from our point of view at Jean Hailes, we get a huge number of women coming to our website looking for information on vulval irritation. So it's certainly an issue for women. And health professionals keep saying to us, 'We want a vulval webinar,' so we know that this is a problem that you are facing, and maybe don't how to manage. And I know that the vulval clinics where the doctors work have extremely long waiting lists. So I think I'd just, sort of like, maybe to throw to you, Kathy, why do you think this is the situation in terms of expertise in vulva?

**Dr Kathryn Cook:** Yes, look, that is the question, isn't it, Louise? Yeah. Traditionally it's been a very poorly taught area, both at the undergraduate and postgraduate levels, even in specialist training such as obstetrics and gynaecology. A lot of trainees will go through without access to vulval clinics. So there's the teaching, from the professional viewpoint. Then there are the patients. There's still a lot of shame and shyness in women coming forward. So that can delay the presentation, and often it can be a much more complex issue by the time it gets to us. And then the consultation itself, these are not quick consultations. We need to, and we will all have a turn in making sure that you understand, you have to take a thorough history, examination and investigations. And a lot of the women are elderly, and simply getting them dressed and undressed takes a certain amount of time. And then the conditions themselves are, by nature, a lot of them are chronic, so it's not a 'see once, treat, take out the appendix and they go home'. So that's why, I'm very sorry, but our vulval clinics clog up.

**Dr Elizabeth Farrell:** Do you think, also, it's to do with socio-cultural things as well?

**Dr Kathryn Cook:** With access and respect? Yes.

**Dr Elizabeth Farrell:** And the idea that a lot of women are postmenopausal and, 'Well it must be the menopause and I have to put up with it,' and all that sort of thing.

**Dr Kathryn Cook:** Yes, there's a lot of very stoic suffering women out there.

**Dr Karen Berzins:** Yes, there certainly are. And I guess one other thing, too, is, who owns the vulva? You could ask. Is it the dermatologist, is it the general practitioner, is it the gynaecologist? Is it the, who does it? Because it’s an area of the body rather than a system, and medicine is taught as a system.

**Dr Elizabeth Farrell:** That's true. That's a really valid point. Maybe that's why we all feel that we need to listen to you tonight.

**Louise Browne:** And I think it's really, this whole webinar is really crucial for getting people feeling more confident about taking their part in the vulva. That not everybody has to wait for 18 months for a vulval clinic appointment. Would that be right? And that's our purpose tonight.

**Dr Kathryn Cook:** We'll be delighted if that happens.

**Louise Browne:** So I'm passing over to Tanja, to take us through an anatomy refresher.

**Dr Tanja Bohl:** Thank you very much. So, initially, this is hopefully something that you all recognise as being a schematic of the vulva, and the things that you really need to be aware of is that the vulva has multiple functions, as we've discussed, and it's an area where the urinary tract and the gastrointestinal tract in the form of the anus, as well as the reproductive tract, with the vaginal opening indicated there in green, they all meet. And they all meet within folds. And in addition to that, there's a fabulous blood supply. And in addition to that, there is a fabulous nerve supply because, unlike any other area of the body, this area that we call 'the vulva' that extends from the mons pubis at the top of the slide all the way down past the anus into the natal cleft, it is an heterogeneous area where, as we've said, no one specialty owns it.

And so you've got all of the women's changes throughout their lives that they go through, will rapidly affect different aspects of their vulva, how much hair they grow, what do they then remove their hair with, what is their cultural background will determine how they do it and whether or not they do it at all. So, too, will media. And then when they're pregnant, there are other expectations as to what they do, and they might perhaps for the first time look at their vulva, and then also later on after menopause, things change again. And one of the things to note when you have a look at this particular drawing is that there are three different coloured sections in there in addition to what is labelled. Now, they each represent a different area of the embryo. The yellow represents what is derived from the ectodermal layer, the pink, the endoderm, and the mesoderm, which gives rise to the vagina.

So what you have here is, all three areas of the embryo meeting. You have three different systems meeting, you have multiple tissue types all coming together. And so in essence what happens here, in addition, they all function differently from each other and they all function as an overlap when it comes to reproduction. And this is important because the normal function isn't solitary. Embryology determines whether or not a particular area is going to respond to oestrogen or progesterone or perhaps to no particular hormone. And then what you're going to also have is, the antigen responsiveness is different, therefore the infections that you may get, or what may be normal to see colonising a vagina in a woman in her reproductive years will not be the same as what it will be in a young girl before puberty. And so you also have the potential for contamination, quite easily, from urine that may leak or from faeces that may leak.

And these things may complicate the dermatoses that we're going to be talking about later. And as a consequence of that, we have to consider how much of it is perhaps the primary underlying skin disorder and how much is actually what's happening in this area afterwards. So I'm just going to move on from that to the innovation of the vulva. And what you'll notice here, hopefully, is that there are all these different colours, and you will be able to read these slides at your leisure after this webinar. Each colour represents a different lumbosacral root of innovation. There is no one colour over the entire vulva and inner thigh. So we don't have any single nerve that anatomically corresponds to any particular anatomical structure. And that's important in assessing symptoms of itch and pain and in assessing a patient who may have a vulval pain syndrome, which we'll be going into in one of the case studies a bit later.

Similarly with the blood supply. As you would expect, it's very complicated in the sense that there's a lot of blood supply because it has a lot of functions that it needs to do, not the least of which is sexual function for pleasure and to make sure tissue is healthy, and to enable orgasm to occur, to enable delivery to occur, and healing to occur afterwards. And so from the biopsy perspective, the beautiful thing is that there is no major blood vessel you're likely to hit when you're doing a skin biopsy for the diagnosis of a dermatosis in this region. Lymphatics, as we would all know, follow the lines of the venous circulation, and these follow the lines of the blood circulation in the arteries that are outlined in the previous slide.

**Louise Browne:** Can I just get you to mention the photos before you get to—

**Dr Elizabeth Farrell:** I can mention that. Thank you.

**Dr Tanja Bohl:** Thank you.

**Dr Elizabeth Farrell:** Can I just interrupt and say that we have many photos of vulvas and for some people that may be somewhat confronting, so please accept that we need to show you these photos as part of your learning. Thank you.

**Dr Tanja Bohl:** So this is actually a schematic of the clitoris. And as you can see, and you really only see the tip of the clitoris when you are examining. And very similar to our male counterparts, we have the glands, we have the shaft, then we have the actual underlying erectile tissue which extends back and behind the pubic rami. Then the question is, okay, fine, so we know all of that and none of it is really that vital to taking a skin biopsy if we see a lesion or if we see a patient with a dermatosis, but it is important for us to be able to know these things, to be able to understand some of the functions in normality and in health, and know that these are different at different times in a woman's life. So what is normal for a prepubertal young girl is not necessarily what's normal for a woman who's just had a baby, or for a postmenopausal lady. And if you aren't sensitive to the age of the patient, the changes that are occurring in the anatomy as a part of normal, then your patients will be able to get confused. You may not be able to reassure them adequately that, 'This is normal for you at this particular time in your life.' It leads to the patient saying, well, 'Am I normal?'

And you, as a clinician saying, well, 'Is this normal?' And those are two very important questions that will be underlined a little bit further in the presentations that will follow. So we're moving on now to those pictures. And here is, in real life, in terms of an actual patient photograph, the different structures that you will see and look out for when examining the vulva. And what you have, starting anterior up the top closest to the pubic bone, you have the clitoris and its associated structures, the shaft, the glands, the prepuce. Then going down into the urinary system, you've got the urethral meatus, and further down, Hart's line, and Hart's line is actually not a genuine line that you can see, although sometimes you may be able to, but what it actually represents is where the vulvar vestibule finishes and the inner aspect of the inner labia minora begin.

We used to put acetic acid on the vulva in order to be able to highlight this. We don't do that now, because 'a' we realise that it doesn't show us anything useful, and secondly, it actually sting quite badly if you do that. So you need to be aware that it's there, you need to be aware that it's a junction point of tissue type. And then you've got the little pits that you can see, and those pits represent the openings of the vestibular glands. We hopefully are all aware of the Bartholin's gland ducts that tend to be more posterior, and at about the five o'clock and seven o'clock sites, but there are also multiple minor vestibular glands that are responsible for some of the lubrication that occurs there. And those minor vestibular glands can become very inflamed, and in that situation give rise to pain.

**Dr Elizabeth Farrell:** Can I interrupt?

**Dr Tanja Bohl:** Sure.

**Dr Elizabeth Farrell:** Sorry.

**Dr Tanja Bohl:** Go right ahead.

**Dr Elizabeth Farrell:** So can you tell us the difference between Skene's and vestibular glands, please?

**Dr Tanja Bohl:** Excuse me. The Bartholin's glands, Skene's glands are types of vestibular glands. The Skene's glands specifically refer to the ones on either side of the urethra, and the Bartholin's to the Bartholin's glands. And they are all located with their ducts opening onto the vestibule. So most of them are unnamed, and they can vary in their position.

**Dr Elizabeth Farrell:** Yeah, that's great, thank you.

**Dr Tanja Bohl:** So this is on a superimposed schematic on the actual photograph. Now right in the centre you can see the vaginal opening and the urethral meatus, and then, on the pale blue line, that the vestibule is actually outlined. And hopefully you can see that all of those glandular openings fall within that area. And as you go further out, you can actually see that the different tissue with the Fordyce spots on the inner aspect of the labia minora becomes present. So looking at it in reality, in the left picture, you can see the Hart lines quite clearly in this particular patient. And the tissue to the vaginal side is more smooth. And to the left hand side on the photo, I'm sorry, I hope I've got that orientated correctly, is drier. And the difference between those two tissue types is that the keratinisation occurs outside, but not on the inside. Thank you. And the vestibular glands that we were just talking about can be present in multiple other places. They're not confined to the ones that I just mentioned. This is an example of vestibular papillomatosis. It's a variant of normal. And what you see are all these tiny little projections right over the vulval vestibule. These aren't warts. Warts tend to be larger, more opaque and more clustered. They don't have this nice uniform pink appearance throughout the vulva vestibule.

The cobblestoned appearance, that we as dermatologists refer to, refers to a rough-looking uneven mucosal tissue. And you can see there on the left and on the photograph on the right that it has a little bit of that appearance as though it looked like there was cobblestone paving there. And what's actually causing those lumps and bumps are the normal apocrine or androgen-sensitive oil-secreting glands. You'll see this particular variant of normal more commonly in women as they get older, and they're little angiokeratomas, which, in essence, a little blowout of a vein meeting an artery within the upper dermis, and there's a little area of thickening of the skin over the top. They're quite benign, but sometimes they can look quite dark, and if a patient doesn't look at herself often, or sometimes looks, and you'll see perhaps just one or two, in that setting they can be quite worrying as a potential for a true pigmented lesion.

And this is another example of normal. This is a normal lady, and what she's got is a split at what we call the 'six o'clock', if you looked at the face of the clock as equalling the face of a vulva. And the only thing that's happened here is that she's had sex the night before, and as a consequence of that, there's just a little bit of shearing. Another example of normal. And again, more examples of normal. And you'll be able to look at these comfortably yourself when you review the webinar. All normal. Normal for age. Thank you.

**Louise Browne:** Thank you very much, Tanja. People did ask for lots of photos, and I think that's the problem, about not seeing enough vulvas to feel comfortable with the normal. So I think it's really valuable. For those of you who are not used to seeing vulvas in your everyday work, it might take a little bit of getting used to, but for the people who are needing to know what they're seeing when they're seeing a vulva, I think this is really crucial. We're going to have a poll. And we just want to ask you to join in and tell us, if a female patient comes to see you with a vulval/vaginal itch, do you examine her? So there's no right answer here. We'd just love you to participate in the poll and tell us whether that would be something you do. Maybe after this, it will be something that you do if you're not doing it already, but we'd really love you to tell us.

So we're getting some results coming in, and we've got, I think we can share that results so that you can see it. We're getting a lot of 'always', which is fantastic. That's what we love to see, isn't it, doctors?

**Dr Elizabeth Farrell:** Absolutely.

**Louise Browne:** That people are always examining the vulva when a patient comes in with that. And only 5% of people are saying they never examine the vulva. And maybe that will move after this, with these clinicians, that we'll actually get people looking at the vulva all the time, because otherwise they will not find what's coming up, or what the person's presenting with. So now we're going to move on to Dr Kathy Cook, who's going to talk to us about how and, examination, basically, aren't you?

**Dr Kathryn Cook:** Yes. So this is the fabulous Wall of Vagina that is found in MONA in Hobart. If you ever get the chance to see it, I recommend it. When do we examine? Well, we examine with symptoms, and the vulval symptoms can vary greatly. Some people will come in and say, 'Oh, I've got the thrush.' Well what does that mean? Have you got itch? Have you got burning? Have you got dysuria, dryness, pain? So tease out what the actual symptoms are. Particularly in elderly women, incontinence is a very common problem, both of faeces and of urine, and associated with that is pad wear, though some people just like to wear a pad in case something happens. But you will never sort out a dermatosis if that poor skin is sitting in urine and faeces all day. So we can examine with symptoms, we can also be opportunistic. Now with our fabulous improvements with HPV testing, with the cervical screening test, now, we only will be examining our patients routinely every five years. So this is perhaps a bit of a lost opportunity, and be very careful to perhaps make more of the symptoms.

Why do we examine? A lot of people come to see us who are normal, and it's to reassure normality. Sometimes it's to diagnose an abnormality. Every opportunity is a chance to educate and empower these women. And alongside of that we can allay fear and ignorance, which is widespread, of the vulva. How do we examine? I'm sure you're all experts in this already, but we must examine with consent and respect, with kindness and compassion. It's a very confronting thing. Do it in a safe environment. If they require somebody to be with them, their daughter, their husband, that's fine. Whatever they're comfortable doing, offer a chaperone if you can. Good lighting is essential. Simple act of offering a sheet, it gives people some dignity. And we always offer a mirror. We try to engage our patients to look at their own vulva. And again, this is an opportunity of education, to take away fear. And particularly people who are using creams, we'll often use and say, 'Show me exactly where you are putting your ointment.'

And sometimes it doesn't correlate at all with what we've asked them to do. And so there's your problem. Also always have your equipment set up. Do not put the speculum in and then decide you better go and find the brush to do the pap smear with. So on examination, we note the anatomy and the skin. We know what is normal and abnormal. Common dermatosis will be covered a lot in this talk, such as lichen sclerosus. VIN may be present. And be mindful that there are general common skin conditions that you may see, such as warts, molluscum. And note anything like redness, swelling, tenderness, blisters, such as herpes, may be the cause of their pain. Normal variants, as Tanja has given us a great talk already, are incredibly important. Know your normal variants. This will allay distress, it will avoid unnecessary interventions. You can be very positive in your body language. For example, you could say angiokeratoma, it's just a beauty spot, rather than, it's an aberrant collection of blood vessels, or something like that. Celebrate the individuality of the patients. So again, these are normal variants. Prominent hymenal remnants, and as Tanja has already showed us, vulval papillomatosis. These are not warts, these are not cancers. These do not need treatment, or any problem. And again, angiokeratoma, or as I might say to an elderly patient, 'Just a little beauty spot, don't worry.'

**Dr Elizabeth Farrell:** Can you call them cherry hemangiomas? Are they the same thing? Because when you look in some of the dermatology books, that's what it's got.

**Dr Tanja Bohl:** The only difference is that an angiokeratoma is supposed to have an extra thickened layer of keratin over the top. Though the pathology, yeah, and they can have that scale. So you are right, but it has a different name in that area just to increase the vocabulary.

**Dr Elizabeth Farrell:** Well, I've learned something.

**Dr Kathryn Cook:** Okay, so abnormal examinations. I have a very simple and very systematic approach. Is the anatomy normal? Is the skin normal? And it gets me through every examination. So I look at the anatomy, are there areas of resorption scarring? Is the introitus normal? Is the clitoral hood normal? And then looking at the skin, what colour is it? Is it normal? Is it red? Is it white? Is it darkened? And is the texture normal? Is it thickened? Is it indurated? So here's an example of a patient's vulva. So let's look at the anatomy. Well, the labia looked quite normal to me. The introitus looks normal and the labia look a normal colour. But down at the posterior fourchette , there's a darkened area and it's thickened. And this, on biopsy, was VIN. So that is not normal.

**Dr Karen Berzins:** Kathy, can you comment on the colour of the upper labia minora there? It seems to be quite pigmented.

**Dr Kathryn Cook:** Yes, but that could be a variant with the race of the woman.

**Dr Karen Berzins:** And it's quite common.

**Dr Kathryn Cook:** It could be, yes.

**Dr Karen Berzins:** A common finding in women.

**Dr Kathryn Cook:** Yes. Thanks. And that's not patchy, it's not particularly darkened. The skin doesn't look thickened and it's nicely symmetrical. So I would find those reassuring figures. Would you agree, Tanja?

**Dr Tanja Bohl:** Absolutely.

**Dr Kathryn Cook:** The other thing about an examination is that when we are examining the vulval skin, we must examine the whole of the vulval area, up into the mons, and then posteriorly into the perianal area, and into the natal cleft. So looking carefully on the left, you can see it doesn't look too bad. There's a hint of a figure-of-eight distribution of pallor, but when you actively open the labia very gently and carefully, you can see there's resorption and whitening and other features that were suggestive of lichen sclerosus. Here's another example of lichen sclerosus. Are the labia normal? No. Well, in fact, I can't see that there are specific labia there. So we have resorption. Is the clitoral hood normal? No, it's, again, quite scarred over. Does the introitus look normal? No. Is the skin normal? Well, there's areas of pink, but there's also areas of white, and crinkling.

So this is another example of lichen sclerosus. I'll just briefly touch on when to take a vulval biopsy. It's not essential in every case, but the times that we would suggest it's necessary, anything that is suspicious, in particular thickened or ulcerated. If we want to get a diagnosis, if it's not clear, or sometimes in young people, who will be faced with a lifetime of treatment and follow-up, it is important to say 'yes they do' or 'no they don't' have lichen sclerosus. Anything that does not respond to treatment or is atypical requires a biopsy. Now I'd like to finish off with this rather horrific slide. And on the left hand bottom side, every single one of you would've said that's not normal, and would've seen what is a very nasty cancer. But now I ask you to be systematic and go around it. Are there labia there? No, there aren't. Is the clitoris apparent? No it isn't, it's all absorbed away. Is the introitus normal? No, it's scarred. Is the skin normal? Well actually it's white, and there's a thickening hyperkeratotic area at the posterior fourchette. So now I hope you would all be able to say, well this is an obvious vulval cancer in a background of chronic lichen sclerosus. Thank you.

**Dr Elizabeth Farrell:** Can I ask you, when you take a biopsy, if you were going to take a biopsy on the lady with the vulval cancer, where would you actually site your biopsy? Would you take it in the middle of the lesion? Would you take it across the normal skin and the lesion? Where would you take it?

**Dr Kathryn Cook:** Do you want to comment?

**Dr Tanja Bohl:** Well I've had the misfortune and the privilege of actually seeing something very similar to this. And whilst the diagnosis, as you say quite rightly, is clinically apparent, because this lady was going to be referred on to a gynae-oncologist, I actually did take a wedge biopsy. So it wasn't a punch, it was a wedge incisional biopsy, from the top down, and I documented it photographically, And I also took a punch biopsy further down from that thickened hypertrophic area, because there was actually some VIN there as well, and another smaller wedge from the smaller lesion on her left. So there are actually multiple ones taken,

**Dr Elizabeth Farrell:** But when you take a biopsy, say in someone you're wanting to, say, take an example of the whitened area, you'd try and take it across the normal and you wouldn't take it just—

**Dr Tanja Bohl:** If you can. Unfortunately in this particular lady, you can't.

**Dr Elizabeth Farrell:** Okay, thank you.

**Dr Tanja Bohl:** So this lady, when you're trying to take a wedge, you would be taking it from the cancer.

Okay, thank you. Thank you.

**Louise Browne:** Can I have the clicker? Okay, thanks very much, to cover some of that really important part of examination and anatomy to help everybody, guide everybody through. We've got another poll coming, and this time we're asking, and this follows up with Kathy's suggestion that there's opportunistic times to examine the vulva as well. So if you've got someone who's come in who's got continence issues, or comes in for an IUD or another sexual or reproductive health matter, are you examining her vulva at that time? So if you'd like to just answer that one quickly.

So it looks like people have been very quick, it obviously went up before I knew. It looks like we've got a bit of a mix. You can share those results now. So we've got 'often' and 'normal' as rating really highly there, which I think is fabulous. Some of these opportunistic times, really make the most of those. And I think there's a lot of questions around dermatitis or irritation related to continence too. So that was a question that's come up a lot, actually. We probably won't go on with that now, but that might come up later in our questions. We're going to go back to Tanja now and she's going to start our case study, which you hopefully have seen before tonight, as we did send them this afternoon.

**Dr Tanja Bohl:** Thank you. So the first time that young Claire presented, she was only 42 years old and she had actually had itch for nearly five years beforehand, and she also was a little bit dry and a little bit chafed with intercourse, and she felt uncomfortable the next day. And she had used a little bit of a topical antifungal preparation, and one that was applied into the vagina that she purchased over the counter at the chemist. They gave her some mild short-lived improvement, and even the oral fluconazole did the same, but nothing that really substantially made things much better for her. So the other history that's important in addition to that is that she did have an abnormal smear, and had CIN 1 in the past in her early thirties, and that required laser therapy and was adequately treated and followed up at the time. And we went through her hygiene review, and there really wasn't very much to change except for the fact that we really don't want ladies using soap and water. Water's fine. Soap by its very nature can unfortunately be a bit irritating, but it didn't seem to be a great deal of validity in her.

Then we went on to have a look, and this is following Kathy's rule, which is very useful. You can see there that the labia are not all present. And if you look at the space between, or the interlabial sulcus between the labia minora and majora, it's not there for the bulk of the vulva. The clitoral hood is also stacked down. And essentially this area is all white. And importantly, apart from the bruising that's there, there's no nasty bumps, there's no ulcers that shouldn't be there, there's no substantial discharge. So clinically I thought that this lady had lichen sclerosus, and because of the substantial changes that were present, a biopsy was taken. And on this particular occasion I just took it from an area that was most white. And I did, as I routinely do, did a low vaginal swab. Now the biopsy showed changes that were confirming the diagnosis clinically of lichen sclerosus, but nothing else going on this. And there was no evidence of infection on the results of the swab. So I placed her onto the betamethasone dipropionate ointment initially, asking her to do it twice a day for 10 weeks and then daily for 10 weeks and then three times a week just of an evening. And I had a look at her again about 12 weeks later.

**Dr Karen Berzins:** Excuse me, Tanja, would that be Diprosone OV or just plain Diprosone at that point?

**Dr Tanja Bohl:** At that point I would usually use just plain Diprosone.

**Dr Karen Berzins:** Okay.

**Dr Tanja Bohl:** I find it convenient to have ladies be given more than one tube, and then they can have one tube in their handbag, in their bathroom. And I also like to get them to have one on their bedside table. So if you're exhausted and you lie down at the end of the day, you don't have to get up to put an ointment on.

**Dr Karen Berzins:** It's so practical.

**Dr Tanja Bohl:** Yeah, well I don't think I'd do that. So I don't expect them to do that.

**Dr Karen Berzins:** That's a fantastic point.

**Dr Elizabeth Farrell:** And it's ointment.

**Dr Tanja Bohl:** Yes, always ointment. You'll find some ladies just don't like the ointment because it's a bit bit too gooey and they think it's a bit too greasy. Look, in that situation, you know that they're not going to use it all the time if they don't like the feel of it. And then you use the cream, because that's better. You have to be adaptable.

So in terms of when you do a biopsy, just expanding a little bit further, these are the sorts of things that you need to consider otherwise you might end up in a bloody mess, which is not pleasant for you or the patient. And interestingly now with so many people taking aspirin for a variety of reasons, it is probably the single most bleeding-aggravating factor that we come across. Warfarin you prepare for, but aspirin, because it has a different mechanism of action, just, unfortunately leads to a lot of bleeding. So you just check beforehand, and I like to use a little bit of adrenaline in this situation. It just means, the only thing is you have to wait a good 10 minutes. So I tend to inject the local and then go back after I've set up.

**Dr Kathryn Cook:** I've been caught out with fish oil.

**Dr Tanja Bohl:** Yes, yes it does cause bleeding.

**Louise Browne:** Turmeric, I heard on Radio National yesterday, too. So a lot of people are taking turmeric.

**Dr Tanja Bohl:** Yeah, they are, as an anti-inflammatory, I wasn't aware that it actually caused the bleeding.

**Louise Browne:** That's what Radio National told me yesterday morning.

**Dr Elizabeth Farrell:** And the other thing of course is that we've now got the new anticoagulants—

**Dr Tanja Bohl:** Yes.

**Louise Browne:** Which are non-reversible.

**Dr Elizabeth Farrell:** —which you can't reverse. So yes, we do have to take that into consideration.

**Dr Tanja Bohl:** We are always needing to update our questions. And the other thing to bear in mind also, because some of our ladies may be quite elderly, as Kathy was alluding to, the difficulty in getting them to get undressed for an examination, it's all very well to tell them to put on the ointment, but if they don't have the flexibility to manage a tube with their hands or to put it in the right place, how much they use, or if they're able to get it where you really want to, may also change. Plus their ability to look after themselves. So I would adapt what I ask them to do to try and make it easier for them. And I do like to take photographs so that I can show my patients where the changes are, what they are, and to then use that, you must always obtain consent, and obviously the ladies whose photographs I've been able to show you have given consent and that's why we're able to see their pictures today.

**Dr Elizabeth Farrell:** So is this a situation where you could actually take a photo of her vulva with their phone?

**Dr Tanja Bohl:** Yes.

**Dr Elizabeth Farrell:** So that they, in fact, then have a record? And so can then, when she comes back for follow-up, you can then say, well 'Look, this is how it's progressed' or...

**Dr Karen Berzins:** And that facilitates shared care too with the general practitioner.

**Dr Tanja Bohl:** And then everybody has a good visual record. And some of my ladies will bring in a USB port, and some will bring in a camera in addition to their phone. It's their vulva and it's important that they understand what's going on. I found that the ease of photography that's now available has been a great aid to how we manage our consultations. So in general, for this sort of patient I would find a punch biopsy, four millimetres, perfectly adequate. And I do tend to put in a stitch. A lot of people do not. It's really, I like people, when they're practicing or learning what they do, to do what they're comfortable with. We have a gynaecologist at Jean Hailes who uses cervical biopsy forceps because that's an instrument she's very comfortable with, and she's able to get a really good biopsy doing that, that's fine. I prefer to use punches.

So before I see a lady again, before I saw Claire again, I made sure that as she was going home, and she was young enough and mobile enough to look after herself well. She didn't have any specific treatment, but I did give her instructions on how to use salt bathing to the area as a soothing agent, and also gave her a little bit of information as to where she might be able to go onto the internet to find information regarding lichen sclerosus. I find it's much easier if I introduce that, because patients will go home and they'll look it up and they need to be warned that the worst cases are the first thing that they're going to see. And that's really not what you want to be having them look at because they'll get frightened. And so if you pre-empt anything that comes up in your discussion, and you pre-empt them, and you're showing that you're not scared of the internet, and you're showing them how they can use the internet for their good. And I think that's really important.

**Dr Elizabeth Farrell:** And as you're aware, we have, Jean Hailes has a vulval booklet which includes in that all the aspects of vulval hygiene or vulval care, and we have separate little booklets, but it is available on the website.

**Dr Tanja Bohl:** Thank you. So then what happened with Claire is that we continued follow-up very comfortably, and she was managing on three times a week really well, and she got a new job. She started working in the city and I'm in regional Victoria, so that meant a little bit more work-related travel for her. And, as I think we can all relate to, when you're really busy, you tend to put yourself a little bit further down the list of priorities as to what to do. And she was quite comfortable knowing that she had a diagnosis and that she had an ointment, and when she put it on, she got relief of her itch. Unfortunately, she also had more problems with her knee and that was actually limiting what she was doing. So what she did was to go and have that checked out, and was ready to go and have surgery and thought, 'Just in case I'm not going to be able to put my ointment on while I'm recovering, I better make sure everything's okay.'

She said, 'Yeah, I know I should have been here a bit earlier, but it's been really responding well to the ointment.' And so this time when I saw her, unfortunately things had actually got a bit worse. The extent of her lichen sclerosus had increased, and she was unfortunately getting involvement all the way, whoops, sorry, she was getting it perianally over the perineum, whereas that was not present before. And she had, at the front, and I'm sorry I don't have that particular photo, but she had a very, a couple of small plaques anteriorly over the vulva where they had fused. So instead of being white and crinkly or white and smooth, there looked as though there were a couple of areas where something had been stuck on. And as Kathy's plaque of pigmented VIN was shown at the posterior fourchette, I was suspicious that it might indicate that some VIN had occurred, so another biopsy was taken.

And unfortunately that was confirmed as having VIN. I think it's interesting and important to note that she had had CIN in the past, and, thank you, certainly women who have had HPV-related disease in the past and do develop lichen sclerosus are at a great risk of developing VIN and possibly invasive cancer. And follow up is important to make sure that if that happens, the changes are picked sooner. So I think I've touched on some of the things that you need. The most important thing is you need to actually let your patient know why you're doing what you're doing and what you can expect.

**Dr Karen Berzins:** Could I just ask a little question? In regard to the likelihood of development for a VIN or a cancer, is there any evidence that a treatment in a preventative way makes a difference? Like, this woman stopped her regular treatment and maybe more on a PRN basis.

**Dr Tanja Bohl:** Yep. I think at the moment, the evidence that we've got from that study that Gayle Fischer did in Sydney certainly is starting to suggest what we suspect, and that is that we can make a difference to stop progression of the disease and to stop the development of VIN by treating, and treating maintenance as well as treating the symptoms.

**Dr Karen Berzins:** It's good news, isn't it?

**Dr Tanja Bohl:** It is wonderful news.

**Louise Browne:** That article could you speak of is actually in the resource folder, so you can download that.

**Dr Tanja Bohl:** And we can anticipate that there'll be even more work done as to how we do that best, but that's the first time that's actually been shown in addition to spoken about.

**Louise Browne:** Which is great.

**Dr Tanja Bohl:** Yes. So long term, yes, unfortunately this patient has, as we have suspected, a lifelong condition. Even if she's not itchy, the likelihood that she's going to continue to have lichen sclerosus and have progression of her lichen sclerosus is there. So it's important that we let her understand that that is in fact the case, and that even if she's not feeling anything, she's going to have to use the cream as a maintenance level long-term. And as far as we know long-term at this point in time means for life. And the reason that we do that is so that we don't get the further worsening and more anatomical losses we can see here, where all structures anterior to the vaginal introitus have been lost. And here again, this is another patient, we have even more extensive loss of the labia minora with thickening of around the vaginal introitus. And that's a very uncomfortable patient who actually came with pain with intercourse rather than it as a dominant symptom.

And this lovely lady who came with a bit of itch and her daughter-in-law, and she had obvious vitiligo, which is an increased association with lichen sclerosus. But she was sent to me urgently by her doctor because she had an episode of frank bleeding. And when you had a look, you can see in the photograph on your right that unfortunately that is a very large invasive squamous cell carcinoma over the clitoris. And because of her age and multiple morbidities, radiotherapy was used. So what you need to do and what you can expect is, she'll get better, and she'll get better with respect to itch first. Her anatomy will stay altered, so it's important that therapy continues. Thank you.

**Dr Elizabeth Farrell:** Can I ask you a question about, when a doctor's looking at the vulva and checking the vulva, and you see all this whitened skin and yet they've got absolutely no symptoms, how do you explain to someone that they should actually treat that skin condition, which looks like lichen sclerosus, because if it's got loss of architecture, loss of the clitoral hood, loss of the labia minora, how do you explain and how do you get women to actually use their Diprosone or whatever steroid you're going to use? They say, 'I don't have any symptoms.'

**Dr Tanja Bohl:** I think that, well, I don't think that there's a 'one answer fits everybody' in that situation. It does depend on patient age and why you were able to make the diagnosis in the first place. Because there's a reason you're looking at her vulva. And it may be that when you actually ask if they've been itchy or a bit uncomfortable, or had any rawness, that something might become apparent. Because about 4 to 5% of women will not be itchy. And then the other thing, I think, that's of value is showing her a photograph, and show her what is different.

**Dr Elizabeth Farrell:** Yes, I think that's a very good idea.

**Dr Tanja Bohl:** Because it's easy today to get onto the internet and see photos of what should be there. And then say that, 'These are the changes that have happened and we can't change it, but what it means for the future for you can be quite nasty.'

**Dr Elizabeth Farrell:** And the fact that this has happened without you being aware of it makes it—

**Dr Karen Berzins:** It's pre malignant.

**Dr Tanja Bohl:** Yes, exactly.

**Dr Elizabeth Farrell:** Thank you.

**Dr Tanja Bohl:** You're welcome.

**Dr Kathryn Cook:** Another, sort of, little hurdle sometimes I face is, you've got the diagnosis, the patient is on board, and then when they go to the chemist they're told not to use such strong steroids, it's very dangerous for them, and then they come back and they've hardly used any. And it's quite useful to ask how many tubes they've used, isn't it?

**Dr Tanja Bohl:** Absolutely.

**Dr Karen Berzins:** 'How long does it last?' If a tube lasts a year, you're worried.

**Dr Kathryn Cook:** Because if a 15 gram tube is still going six months later, they're probably not using it.

**Louise Browne:** We've got quite a few pharmacists who've registered for tonight, so hopefully this is a great opportunity for them to gain some knowledge too around that.

**Dr Tanja Bohl:** I think it's difficult for the pharmacist because they do have to say those things, and it's quite appropriate to say those things. However they're not going know why, so, I don't know whether we need to have more dialogue and they may come to recognise prescriptions from you may be for those sorts of things and just check, has your doctor explained how to use this?

**Louise Browne:** And maybe as a clinician you need to pre-empt that, what's going to happen.

**Dr Tanja Bohl:** That is a useful conversation to have with your patients beforehand.

**Dr Karen Berzins:** We've talked about this a lot in the clinics, because we work together always as a team, and I think we've generally come to the conclusion, a little bit of overtreatment is better than a little bit of undertreatment treatment when you are risking both scarring and risk for an SCC. So steroid telangiectasia, yes, it does occur. Significant thinning, well, lichen sclerosus itself can cause some thinning. But it's better to be on top of it and then redirect exactly where the treatment is being given.

**Dr Elizabeth Farrell:** They are getting confused by the different points of view, and yet you want them to use that ointment for the rest of their life.

**Dr Tanja Bohl:** And I think therein, too, one of the things that you check for when you re-examine is not only control of the disease, but to make sure that they're not getting signs of having overused cortisone.

**Dr Elizabeth Farrell:** Yes, exactly.

**Dr Tanja Bohl:** So used appropriately it's fantastic.

**Dr Elizabeth Farrell:** And that's what we always say, a smear. And then that's where the mirror is very good.

**Dr Karen Berzins:** And usually at night, if it's a single dose per day.

**Dr Elizabeth Farrell:** Just before they go to sleep.

**Louise Browne:** Could you just advance the slide? Because I think we have another poll, but we're going to be really quick because we are running a little behind time. Our next poll, and we are sort of ahead, this poll's a bit ahead of where we're up to, but it's just a question around candida infection, and is it likely to occur in a woman postmenopause who's not using HRT? So, answer our poll, and then we'll get moving with Karen and their next case study.

**Dr Elizabeth Farrell:** 'candida.'

**Louise Browne:** People are thinking, 'candida', sorry, I said the wrong, I've said it wrongly.

**Dr Tanja Bohl:** Well it's a bit like 'tom-a-to' and 'tom-ah-to' isn't it.

**Louise Browne:** Yes. My apologies. I was told earlier and I still got it wrong. So this is fabulous. 73% of our audience are saying no, it doesn't. So that's great. We love that.

**Dr Elizabeth Farrell:** You must be speaking to the converted.

**Louise Browne:** Yeah, maybe. 12% of people don't know, 21% say maybe, 22% say yes it can.

**Dr Karen Berzins:** Well it can, I mean, you do have to remember things like diabetes, and certainly in our sexual health service and in men, balanitis in the middle-aged man commonest reason, early diabetes. So, and of course immunosuppressants and things like that. But yes, hormonally based, no, not alone.

**Louise Browne:** But it is a good thing to remember, isn't it, for people?

**Dr Karen Berzins:** Yes, yes.

**Louise Browne:** Now Karen, we're going to move on to you.

**Dr Karen Berzins:** Okay, let's go.

**Louise Browne:** And our second case study.

**Dr Karen Berzins:** Yes. Okay, so this is Amal, who came to our service. She was a 26-year-old woman referred by a sexual counsellor. If we look down the slide a little bit, she had self-referred herself to a sexual counsellor, and the reason for that was probably shyness. She'd googled her symptoms and thought it was a problem of sexual function. She described seven months of vulvovaginal pain with a feeling of something being blocked at all attempts at intercourse. She'd been married for seven months, she'd had no prior partner. She was very well educated. She was from outside Australia and had no previous self-treatments or, as we said, medical consultation. So from her history at this point, from what she gave us, the pain duration actually is uncertain. She certainly describes pain with sex, but without previous self-touch such as masturbation, no previous tampon use, there never being a previous partner, we really don't know how long she's had provoked pain, that is, provoked by touch.

She didn't describe any spontaneous pain. The only thing she offered spontaneously in her history was that there was leucorrhoea, she actually used that word. So a white discharge. But didn't give any indication of symptoms associated with that. I mentioned there, there are no pain complicating features, and by this I mean, we can get onto that later, it's well described in one of our articles. But any hint that there might be previous pain sensitivities such as bladder irritability or childhood bladder fussiness. Other things you might think about, irritable bladder, migraine, fibromyalgia, that sort of thing. There's also no depression, anxiety or specific trauma history for this woman. Now the initial consultation was by a young colleague, and she went pretty much to a targeted pain history, which is pretty accurate. It really did support the diagnosis of a provoked vestibulodynia, and given the nature of the referral, but we didn't have an idea of associated or trigger factors.

And by the time we were examining, it was pretty obvious she had more than pain sensitivity. Direct questioning, once we examined the vulva, revealed that she'd actually had seven months of generalised vulval itching and scratching. So this is why I highlight, this is a pitfall of not taking a thorough history initially. So it's almost like 'don't ask, don't tell'. So we need to directly ask people these things because people are embarrassed. They don't tell you they're scratching. Scratching is a little taboo in our society, each scratch, how they're washing, how often, are they rubbing, face cloths, toilet paper, how often, with what? Continence, taboo. You must ask about continence. Pads and liners, that can be from habit, that can be from need. Skin generally doesn't like these things every day. Sexual skin discomfort, does skin split during sex, is it comfortable, is there burning afterwards and so on.

What's the degree of arousal and ability to orgasm? Now we need to signpost all these questions. Medical students know exactly what signposting means, but we were not brought up with that term. So we need to explain why we're asking these questions in order not to be too confronting. But the tampon question is really useful because it tells us that she's comfortable to touch her vulva, and the comfort level of inserting anything. Same with self touch, comfortable, yes/no, orgasm, no never orgasm, and so on. And later in the consultation, and it might not be this consultation, it might be a subsequent consultation, we talk about attitudes to sexual relationships, attitudes to herself, relationships and trauma. Now trauma doesn't have to be overt, it doesn't have to be physical trauma, it doesn't have to be sexual trauma, but it can be fear of not being safe, especially not safe as a child or any adult at home.

More questions to ask. What and where on the vulva are the symptoms? Women do not use the word 'vulva'. I suggest we use a drawing. Where are we talking? They usually say, 'The problem is vaginal.' So itch, we think of dermatitis or candida, or is it another symptom, burning or something else, which makes us think more towards a sensitivity or pain problem. Anything acute, infection or dermatitis, can burn, we must remember that. But we are thinking of, in the first instance, an abnormal examination to follow a story of itch, or no abnormal skin if the symptom is isolated to burning in the absence of an acute dermatosis or infection, or other symptoms. So normal examination, expected or abnormal skin. So spontaneous symptoms or provoked by touch, or both, will help us distinguish categories of vulvodynia. Is their discharge, associated urinary symptoms, or a history of atopy or other dermatitis that can contribute to symptoms. Whether it's a long history or a sudden history.

And again, we're a little bit stymied in this woman regarding her pain because if we are thinking about provoked touch, we have no story of provoked touch until her marriage. Now, are there times with no symptoms despite the same triggers? What has been the effect of prescribed or self-prescribed medications? Often people say nothing helps, but what they mean is the medication helps for a while and then there's relapse. We should ask about, has there ever been previous swabs or an MSU taken? Often people come with a dysuria but MSUs either haven't or haven't been taken and it's never proven to be a UTI. We have to consider STI or a form of vulvodynia with a urethral sensitivity. So for this woman, there was little obvious to initial vulval inspection, and we'll get to that slide in a moment. She was initially too painful to touch, as she was very frightened. And the fear needs to be addressed and we need to take time.

Very careful vulva exposure actually revealed an extensive dermatitis and therefore triggered the question of, have you been itchy? We saw skin fissures and erosions. In our clinic we have microscopy available and we could see pseudohyphae. But at this stage we cannot assess the degree of pain sensitivity or vulvodynia at that time. So initial examination doesn't show very much. It showed a little bit of redness. But apart from a white discharge on this slide, I would say there's not much to see. Difficult to assess the labial size, but in fact her labia were fairly normal but small for size. Now with more extensive, this active examination that Kathy and Tanja have already talked about, we can see more skin changes. Unfortunately without a pointer, but in the upper lateral area, the skin actually is finely crinkled. And we wondered, could this be an element of lichens sclerosus?

But I think you can't even judge that at this point. Is there a little bit of fusion in the inter labial sulci, hard to say, but there is some oedema in the fusion lines. What's a little bit difficult to see, and I'll show you on the next slide, again, this is all very red and all very flesh-coloured. And in a dark-skinned woman you can see it's actually very red. So these photos are taken in the same consultation. Lower down, I'm sorry again, I don't have a pointer, but there actually is a longitudinal ulcer, on the slides left, in the lower half of the labia minora in the sulcus. On the opposite side, there's actually a very fine longitudinal fissure. There are small satellite lesions, and the white discharge that you can see. We couldn't expose the vestibule very well because she was so tender.

But we see pseudohyphae, it confirms acute candida. So our initial management, well, do we treat this as acute or chronic candida, or recurrent if you like? Do we add a topical steroid? What potency? What vehicle? We give her general skincare and advise 'no touch that's painful' because that will trigger more pain sensitivity. This is the regimen we gave her and we certainly educated her about the interplay of skin inflammation triggering chronic pain. This is her three weeks later, unrecognisably different. Her tenderness had reduced markedly. Initially she rated it eight out of 10 with a cotton tip touch and now she rated it two out of 10. We can see a prominent hymenal band. We still weren't so certain whether it was vulvodynia, provoked vulvodynia, but we were suspicious. We continued with the suppression. We tapered the topical steroid, which was an ointment, mid potency, and we reviewed her for assessment of the hymenal band.

We wanted to include the partner, and we made a multidisciplinary referral, and very important to continue with the counsellor for the impact of the pain. So at one month review, again, she was very good. There was no attempted sexual touch at that point, and we made a physiotherapy referral. And at this point I'll say, remember placebo, concepts of placebo have greatly changed in the last decade. It is not a concept of deception. It is highly effective, especially with pain, but in other conditions, an expectation of improvement is crucial, and hopefulness and positivity from the practitioner is crucial. And there needs to be a ritual of therapeutic behaviour change, which might be how we do things, the physiotherapy or medication. Openly used placebo with patients informed of placebo still works. Now you can see at this point, at two months, she hadn't seen the physiotherapist. The counsellor had been organised.

She had many, many fears about sex and childbirth, and we still need to know the position and the awareness of the partner. Some new brief sentences we can say to people, 'it might hurt, but it does not equal harm to your body, harm to your tissues', 'it may be sore, but you are safe, your tissues are safe'. Accurate knowledge and good relationships with practitioners and partner, reduce fear and helplessness. Catastrophisation in the chronic pain literature means a person is fearful, feels helpless, and has lost her control. Education helps this greatly. Finally, is this complicated or uncomplicated? I'll leave you with this slide. It is discussed in one of our articles that we'll refer to, but basically there are subtypes of vulvodynia. The longer duration of pain and the more severe the pain, the more likely it is to be complicated. Other different difficult-to-treat conditions make it more complicated.

And a high degree of central sensitisation, which again you'll be familiar with in the chronic pain literature, makes it harder to treat. We've got a little bit, I think, that's self-evident for difficult candidiasis, but again, ongoing untreated candida is the commonest trigger for localised provoked vulvodynia. We need to take it seriously. Biopsy can show, we can see pseudohyphae in the keratin layers. That vaginal swab was negative, and the swab from, this is in another patient, the swab from the vulva, from the abnormal area, it was also negative. Equally, you can have vulval microscopy and culture positive, and vaginal negative. So swab abnormal sites. And these are two final slides to show variations in candidiasis.

**Dr Elizabeth Farrell:** Looks nasty, doesn't it?

**Louise Browne:** I've just had a question come in about pain. So whether it's relating to vulvodynia I'm not sure. She just says, the GP says, several physio colleagues have recently requested I write scripts for topical compounded products for vulval pain. In particular, I have seen requests for combination Endep, Baclofen and Clonidine. Can you please comment on the evidence behind the combo of multiple topical products?

**Dr Karen Berzins:** Look, this is really difficult because there's no strong evidence for any treatment. The best probable treatment evidence is for physiotherapy directed at pelvic floor overactivity. So the women who have predominant pelvic floor overactivity without these other complicating factors are in a way the luckiest, they're most amenable to treatment. To say that the other ones do or don't work is very difficult because the evidence is poor. Not that it doesn't work, but the design of the studies is generally, one study tends to be very different to another study. This is the same in generalised chronic pain settings, not just vulval, but especially vulval. And the numbers tend to be small in these studies. So you might get a 20 to 30 to 40% effectiveness, but that's actually not very different to placebo.

And again, we need to maximise placebo, utilise placebo and don't denigrate a treatment to say, well, it's only placebo. We would say, do what works. Do the most simple and least expensive first, the most accessible. And for instance, I asked you about Diprosone OV, that's expensive, but Diprosone ointment is for someone on a healthcare card. So we tailor things to the practical side of things. I wouldn't go saying, well, this one really will work, it's got the most up-to-date, it's the latest, it's this. It may or may not. One of the big advantages to using something topically, and that might be a topical local anaesthetic, is that the woman is engaged with her vulva. Touching, massaging, exploring her muscles, and by this stage working with a physiotherapist who is hands-on. In all chronic pain conditions, there is more evidence for the effectiveness of hands-on physiotherapy than machine-related physiotherapy.

**Louise Browne:** And these requests were coming from physios too. So that's interesting. They're obviously looking for something in addition to the treatment that they're offering.

**Dr Karen Berzins:** I wouldn't say there's a magic bullet.

**Louise Browne:** Yeah, okay. Thank you, Karen.

**Dr Elizabeth Farrell:** Can you just talk about the various types and why there is a classification of types of vulvodynia?

**Dr Karen Berzins:** I think, so, I think for a long time we were just trying to come to grips ourselves with the condition of vulvodynia. Was it spontaneous? Was it really harder to treat primary, which is from first touch, or secondary where there's been comfortable touch for a long time. And probably, answer to that is it's not much different. It's more about the subtypes. Again in our article that we published in 2017, which is referenced in your notes and you'll be able to access that reference, we talk about, and if you don't mind, I'll just go through so I don't forget, the things that are less complicated. So short duration, milder pain sensitivity. No or maybe one other chronic pain conditions such as migraine, irritable bowel, irritable bladder, temporomandibular joint pain. Little or no depression or anxiety or else readily treatable with good social supports. No trauma history. PTSD is a big factor and under-recognised in young women and older women, people in general, we're starting to be aware of that in the literature.

Well controlled candidiasis makes it more easy to treat and so on. Someone who's sleeping well makes it uncomplicated, really chronically poor sleep brings it into the complicated. Now a predominantly overactive pelvic floor as the predominant finding, that's good. We can work with that really well. We love the physiotherapists. Physiotherapists really are the key to this, and the counsellors, about the impact of the pain, and the time that any practitioner takes. So we can look at broad subtypes. So the simple uncomplicated tend to be that, as I said, the overactive pelvic floor, and the predominantly peripheral inflammatory mechanisms. That will be a candidiasis that's easy to control, a dermatosis that's easy to control. Ones that tend to be complicated are where there's significant psychosocial and emotional factors. We've talked about preexisting anxiety without trauma even. Anxiety, depression is overrepresented in vulvodynia, especially anxiety. And those with painful comorbidities. So we call that 'coexistent' or 'other' chronic pain conditions.

**Dr Elizabeth Farrell:** So what about local and, what are these different types?

**Dr Karen Berzins:** Well, the local ones tend to be the things that irritate the vulva, and that's why I said—

**Dr Elizabeth Farrell:** So that could be chronic candida.

**Dr Karen Berzins:** Absolutely. And that's why we say when you're giving antibiotics, anticipate that there's a vulnerability to candidiasis for a lot of reasons, especially the gut microbiome needs to have its healthy bacteria. And including vaginal lactobacilli too, maintain that balance between commensal candidiasis and the hyphal form which is more invasive. So a very, very delicate balance.

**Dr Elizabeth Farrell:** Thanks, Karen. Did you want to make a comment?

**Dr Tanja Bohl:** Yeah, I think that Karen has given an excellent classification with the 'complicated' and 'not so complicated'. In terms of the classification, for example, as the ISSVD has brought out, that is trying to deal with the problem of vulvar pain, so that it separates off vulvar pain with an obvious cause, such as your chronic candidiasis, so that those are not considered to have true vulvodynia. Vulvodynia is where you have a woman who has pain that persists and there is no obvious cause for it. And that's where the generalised/localised, provoke/non-provoke comes. And those classifications are done in the hope that in research and in clinical practice we'll start to use the same language, so that then when we read a study, as Karen alluded to before, the same language is used—

**Dr Elizabeth Farrell:** And methodologies.

**Dr Tanja Bohl:** Exactly, so we can compare apples with apples, as we say.

**Dr Karen Berzins:** It is so complicated because, given the ISSVD and then what's true vulvodynia and what's not, I mean in front of you you have a woman with a symptom and so it's vulvodynia. And we've gone through all this and we've decided it's vulvodynia, and it does seem to be that the vestibule has a very particular immunological function and sensitivity to candida. So your trigger, and this is in all chronic pain, there was something that triggered it. It happened. Genetic factors are very strong, so these other comorbidities have strong genetic factors. It's interesting, oestrogen, candida, yes, oestrogen with its increased glycogen and glucose promotes candida, but equally oestrogen promotes antimicrobial activity of the epithelial cells. So there's an incredible balance. I mean, I think our knowledge of candida is absolutely exploding at the moment.

**Dr Elizabeth Farrell:** Absolutely.

**Dr Tanja Bohl:** The other thing, sorry—

**Dr Elizabeth Farrell:** Yes, finish, because we're running out of time.

**Dr Tanja Bohl:** Oestrogen also is a neuromodulator.

**Dr Karen Berzins:** Absolutely.

**Dr Tanja Bohl:** And so pain will be different at different times of the cycle.

**Louise Browne:** I think we can gather that we need a whole webinar on vulvodynia on its own.

**Dr Karen Berzins:** Microbiome.

**Louise Browne:** Microbiome, that's another.

**Dr Elizabeth Farrell:** Kathy, can I ask you to comment on the chronic candida? How do you treat it? As the practitioner out there, and the woman comes back and she's got thrush symptoms again and you swab her and it grows again and, how do you manage this? You can all chip in.

**Dr Kathryn Cook:** Yeah, I think the first thing to do is, again, to go back to absolute basics and to take a history. If it's recurrent thrush, it's often cyclical and it will often peak premenstrual and abate a bit naturally postmenstrual, in which case you can target your treatment for that period. For example, even some intravaginal azole for that time. But I think it's important you do make sure it is thrush, because the patient will often tell you they've got thrush.

And we've already discussed that thrush is the word that's used for any myriad of symptoms, and quite a lot of chronic thrush I've found to be lichen sclerosus. And so I think, given that you've done all that and you've taken your swabs and you're sure it is thrush, because it could also be bacterial vaginosis or another recurrent discharge, then, we were discussing this earlier, it can be quite hard to find the guidelines on the treatment. And they haven't been obvious within the antibiotic guidelines, and they've been hidden, with all due respect to Tanja, in the dermatological.

**Dr Tanja Bohl:** I'm not responsible for this.

**Dr Kathryn Cook:** And there are many recipes for how best to use it. If you use Diflucan, 150 milligrams.

**Dr Karen Berzins:** That's fluconazole isn't it?

**Dr Kathryn Cook:** Yes, which is fluconazole. If you use that weekly or a hundred milligrams weekly, some use 50 milligrams a day, which I think is probably more than I would normally use. And I think there's a little bit of trial and error and I would go for the smallest dose, they gave the suppression of the symptoms.

**Dr Elizabeth Farrell:** And how long do you keep it going for?

**Dr Kathryn Cook:** That's a great question. I would say for the first episode, six months.

**Dr Karen Berzins:** Once you've got the condition.

**Dr Elizabeth Farrell:** Would you say six months?

**Dr Karen Berzins:** Yes.

**Dr Elizabeth Farrell:** And you'd say six months?

**Dr Tanja Bohl:** Yes.

**Dr Elizabeth Farrell:** And then what do you do when they come back and say, 'I've stopped my medication and I've got my symptoms back.'

**Dr Tanja Bohl:** Well, I'd confirm that it is in fact the same diagnosis, you have to start from scratch. And if you are dealing with the same problem again, sometimes you'll find it's a slightly different candida, different resistance levels and so forth.

**Dr Elizabeth Farrell:** So that raises the issue of candida glabrata. And I can remember being rung by a pathologist telling me that I don't need to treat this because it's really a commensal. Yet the woman is presenting with symptoms and discharge. So what do I do?

**Dr Karen Berzins:** I think you take it seriously in the context of the symptoms and the signs. We also know that a lot of treatments say, with Diflucan or any other frequently used antifungal, can select out those that are more resistant to fluconazole, which will be things like candida glabrata. The other thing, people often forget that the discomfort can, even though, and this gets back to what we were talking about, true or not true, if candida can trigger, and so candida may be well controlled, but you can still have burning and discomfort, and even a neuropathic itch. So the itch sometimes is actually not neuropathic but dysfunctional.

**Dr Elizabeth Farrell:** So how do you treat that?

**Dr Karen Berzins:** Well then you go back to the vulvodynia guidelines, you treat them in parallel. But let's say it's not that, you decided it's not that, and you've got candida glabrata. It's not meant to be as pathogenic because it doesn't have hyphal form. The hyphal form is responsible for a lot of the virulence factors associated with candida. But once it's there and we've decided it is, and you take the swabs, probably boric acid, but it's again got about 70% effectiveness. Vaginal.

**Dr Tanja Bohl:** Yes they are, not oral.

**Dr Elizabeth Farrell:** Okay. Conscious of the time, ladies.

**Louise Browne:** We've had amazing questions, so thank you so much for sending in all your questions. Unfortunately, as I said earlier, we can't get to all of them.

**Dr Elizabeth Farrell:** Can I do two more?

**Louise Browne:** Oh yeah. No, no, no, no. You've got time. I'm just telling people, I'm apologising. We might not get to them, but we have still got some more coming.

**Dr Kathryn Cook:** Can I just, sorry, just to complete the candida, people who've been using lots and lots of anti-thrush medications, particularly over the counter, they'll often come in, well they might have lichen sclerosus, and the other question is, 'Did you recently put any creams in your vagina?' Because there's not much point taking a swab and they've just put a syringe full of creams.

**Dr Karen Berzins:** And even if you used fluconazole a week or two ago, we really need no antifungal for about a month, to take a meaningful swab. And also, remember, if you're giving it on culture, in the absence of symptoms, it's probably the commensal status. We really like to see, to confirm a diagnosis on microscopy. And in the association, too, with polymorphs. But yeast, pseudohyphae on microscopy is always more meaningful. However, if someone is symptomatic on fluconazole and still got it on culture, you'd be suspicious that it is responsible for it.

**Dr Kathryn Cook:** And Tanja, often you get a secondary dermatitis.

**Dr Tanja Bohl:** I think that irritant contact dermatitis, particularly with topical azole preparations, is very common, and you really do need your history and re-evaluation to determine what actually is the problem. But yes, I agree what you've said.

**Louise Browne:** Does it need to be treated?

**Dr Tanja Bohl:** Not necessarily.

**Louise Browne:** That was a question.

**Dr Karen Berzins:** Now, we might comment on oral nystatin? It's not absorbed. So oral nystatin won't help the vagina.

**Dr Tanja Bohl:** Unless you apply it topically.

**Dr Kathryn Cook:** Can we move on to some other questions? So are there any natural therapies that could be used for the treatment of vaginal dermatoses? Say particularly lichen sclerosus. Is there anything that we know that's suitable?

**Dr Tanja Bohl:** I think if you're trying to get itch relief, certainly the skin is dry, it can be broken. And anything that will help to moisten the skin will make any irritation, itch, tingling, feel better. In that situation we have olive oil, coconut oil.

**Dr Elizabeth Farrell:** What about paw paw creams?

**Dr Tanja Bohl:** Paw paw creams are often used, but they aren't all equal. So there will be occasions where women will use them and they'll be perfectly all right and find that they will relieve them. And there'll be other situations where they may work for a while and then things stop improving. And that can mean that unfortunately they're developing an allergic reaction to it. So with all things you need to bear in mind that that may happen. But I think the thing to remember, because there's so much advertising on the internet, is that whilst these may well give you symptomatic relief, they're not actually going to be therapeutic for the management of the lichen sclerosus. So they're an adjunct therapy.

**Louise Browne:** And can I just sort of quickly ask about probiotics? Everybody loves to talk about probiotics. What's their place in the management of candida?

**Dr Tanja Bohl:** I think the honest answer is we don't know enough yet. Logic tells us the gut microbiome is incredibly important in our general wellbeing, and even the vaginal microbiome, alterations in that can unfortunately make a woman more susceptible to candida. I feel, as do, I think, all of us who work in this area, that there are probiotics that are essential for maintaining good vulvovaginal health. We just haven't been able to identify them at the moment. And so going back to basics, maintaining a diverse and healthy diet of 'what's in season, when it's in season' means you're most likely to get what you need in the way of probiotics from your diet.

**Louise Browne:** But in terms of lichen sclerosus, even if someone's using something to help manage the itch, they still need the long-term treatment?

**Dr Tanja Bohl:** Yes they do. Because they actually—

**Louise Browne:** To prevent the damage.

**Dr Tanja Bohl:** Relief of the symptom does not mean that you are taking away the future loss of tissue and the risk of cancer.

**Dr Elizabeth Farrell:** It's not controlling the process.

**Dr Tanja Bohl:** No, it's not, Exactly.

**Dr Elizabeth Farrell:** Because it's an autoimmune.

**Louise Browne:** Now another question was, does everyone need to be referred to a gynaecologist? You as the gynaecologist, would you like to comment?

**Dr Kathryn Cook:** Definitely. Everybody needs to!

**Dr Tanja Bohl:** We don't have enough work.

**Dr Kathryn Cook:** No, I'm just joking.

**Dr Elizabeth Farrell:** Two minutes.

**Dr Kathryn Cook:** Two minutes. I think gynaecologists are learning about the vulva as much as any other profession, to be honest. And not every gynaecologist is a specialist in the vulva, just like every gynaecologist is not a specialist in endosurgery. I think it's very much a team effort. There are dermatologists who are interested, sexual health physicians. There are excellent GPs who are great resources out there. And we've had people train with us and then go back to the community. And there's also, let's not forget, practice nurses, and many of the practice nurses who take pap smears, I think are more expert in examining the vulva than many of the doctors I know. So I think that it depends on the individual.

And does everybody need to be referred to a specialist, is perhaps a better question. And I think that a team approach, some form of share care between the GP or the nurse practitioner and the specialist would be ideal. If there were any concerns then, when to take a biopsy that we've already covered, that would be a time we would want to see them. But if there was good response to topical treatment and the patient was well and was being regularly, at least every six months in the beginning, and then an annual review, and the tissues were stable and there was no damage and no symptoms, I would say that wouldn't necessarily require a specialist.

**Dr Karen Berzins:** And this brings up that question of the young woman with a—

**Dr Tanja Bohl:** 'Need a specialist', by that you mean somebody who has an interest in vulval disease as opposed to a particular gynaecologist, dermatologist.

**Dr Kathryn Cook:** That's what I mean, a specialist.

**Dr Tanja Bohl:** And I totally agree with that statement.

**Dr Elizabeth Farrell:** So we are now at the time for the take-home messages, please. So I'm going to start with the first take-home message, that you need to take a thorough history. So you've all heard this throughout the night with everything in medicine. Take a thorough history about the condition. And ask direct questions, because many women will not volunteer questions about their vulval symptoms or their urinary symptoms, the incontinence or any sexual symptoms as well. So we need to specifically ask those questions and, once again, examine the vulva. Not just have a quick peek but to actually part the labia and look. And you do that, always, when there are symptoms. And secondly, when you're doing a pap smear, always look as well.

**Dr Tanja Bohl:** I think another important take-home message is to recognise that vulval conditions, whether it's an eczema or whether it's lichen sclerosus, are chronic diseases very much like diabetes and hypertension. So that they need long-term careful management so that they do remain under control and any complications can be pre-empted and hopefully prevented.

**Dr Elizabeth Farrell:** Okay, next one.

**Dr Karen Berzins:** And mine would be, don't expect to do everything in the first visit. Time your visits, plan a review in say a couple of weeks, review again in a month, and then develop a team. Do everything as a team, develop your own network of a team.

**Dr Kathryn Cook:** And my take-home message would be that time is on your side, that a lot of these conditions have taken even years to develop. And it's okay for us to take months to slowly get people back to their health. It's not a quick fix.

**Dr Elizabeth Farrell:** And these are some of the resources that you can see up on your screen now. And I would like you also, to remind you that there is a national society, the Australian and New Zealand Vulvovaginal Society, and you can find an appropriate practitioner on their website. So please remember to use the resources and to use the societies. The Jean Hailes has a vulval booklet. Please look online, if you want any copies of it, please let us know. Thank you.

**Louise Browne:** Thanks Liz. Thank you, fantastic panel. I think there's just been so much great information tonight. So I hope that you've enjoyed tonight's seminar and realised that there's lots more, obviously, that we couldn't cover. But we've covered some of the big ticket items, and we've tried to address the questions that you've sent us. We will try and put together, some of the other questions that we didn't get to tonight, we'll include them in our webinar library. And the webinar will be ready hopefully by the end of next week. I won't give you a day, but we will email you. So thanks so much for joining us for tonight's webcast. It's been fabulous to have so many people. We will email you next week. If you need a certificate for tonight for your CPD records, or if you need RACGP points, stay tuned and complete the evaluation. And thanks again to the wonderful panel for joining us. Thank you.

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