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Kyrle disease

What is Kyrle disease?

Kyrle disease was first described in 1916 by Kyrle as 'hyperkeratosis follicularis et follicularis in cutem penetrans' and identified as a perforating disease. To this day controversy remains about the classification of Kyrle disease – is it a distinct disease entity, part of the spectrum of acquired perforating dermatosis or a subtype of acquired perforating collagenosis?

Currently, two major perforating diseases include [reactive perforating collagenosis](#) and [elastosis perforans serpiginosa](#). In some literature, acquired perforating dermatosis is a third major group and is a catch-all term for cases of perforating disease arising in adults, usually associated with a systemic disease.

Kyrle disease is characterised by the formation of large papules with central keratin plugs and is often associated with hepatic, renal or diabetic disorders. It can affect both men and women throughout life, although the average age at time of presentation is 30 years.

What causes Kyrle disease?

The cause of the disease is unknown. Some cases appear to be idiopathic (no known triggers), or inherited. What has been found is that Kyrle disease appears to occur more frequently in patients with certain systemic disorders, these include:

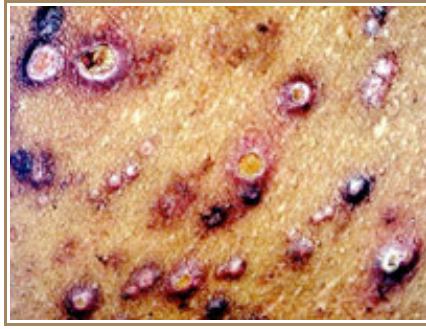
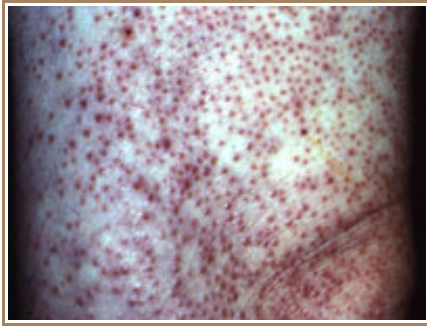
- Diabetes mellitus
- Renal disease (chronic renal failure, albuminuria, elevated serum creatinine, abnormal creatinine clearance, polyuria)
- Hepatic abnormalities (alcoholic cirrhosis)
- Congestive heart failure

What are the signs and symptoms?

Lesions begin as small papules with silvery scales that eventually grow to about 1.5cm in diameter to form red-brown nodules with a central keratin (horny) plug. Multiple lesions may coalesce to form large keratotic plaques. Lesions occur mostly on the legs but also develop on the arms and in the head and neck region. The palms and soles are rarely affected. Without treatment lesions heal spontaneously but new ones continue to develop.

Lesions are not painful but patients may experience intense pruritus (itching).

Kyrle disease



How is the diagnosis made?

There are many other disorders characterised by papules or nodules with central keratotic plugs and crusts. The deep penetration of the keratotic plugs, the size and irregularity, the age of onset and the distribution of lesions should aid in the diagnosis. It is also essential to examine and test for any underlying conditions such as diabetes, liver and renal disease.

What treatment is available?

The aim of treatment should be to treat the underlying disease if one is associated. Rapid improvement and resolution of lesions is often seen once the underlying disease is treated.

Lesions may self-heal without any treatment but often new lesions develop. Treatments that have been used to treat and reduce lesions include:

- [Isotretinoin](#)
- High dose vitamin A
- [Tretinoin cream](#)

[Emollients](#) and oral [antihistamines](#) are useful in relieving pruritus.

Related information

References:

- Book: Textbook of Dermatology. Ed Rook A, Wilkinson DS, Ebling FJB, Champion RH, Burton JL. Fourth edition. Blackwell Scientific Publications.

On DermNet NZ:

- [Reactive perforating collagenosis](#)
- [Elastosis perforans serpiginosa](#)
- [Flegel disease](#)
- [Diabetic skin disease](#)

Other websites:

- [Kyrle Disease](#) - emedicine dermatology, the online textbook

Books about skin diseases:

See the [DermNet NZ bookstore](#)

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DermNet does not provide an on-line consultation service.

If you have any concerns with your skin or its treatment, see a [dermatologist](#) for advice.

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