

Insulin/insulin suspension isophane

Acanthosis nigricans in an elderly patient: case report

A 70-year-old man presented with acanthosis nigricans following repeated injections with insulin and insulin suspension isophane [*times to reaction onset not clearly stated*] for diabetes mellitus.

The man, who weighed 102kg and had a 14-year history of type 2 diabetes mellitus, was admitted with peripheral arterial disease of the lower limbs. His former anti-diabetic therapy included metformin, regular human insulin before meals (18-18-18 IU) and insulin suspension isophane 24 IU at bedtime (0.76 IU/kg, four shots a day). Examination on admission revealed a large, hyperkeratotic lesion at both sites of a former laparotomy of the abdominal wall. The lesion was 10cm × 36cm in size, dark brown in colour, and had a papillomatous hyperkeratotic surface. He reported that the lesion was pruritic and had been proliferating for 3 years. It was discovered that he had used the affected abdominal area exclusively for injecting insulin for 10 years.

The man was instructed to discontinue injections into the affected area and to rotate the injection site. During hospitalisation, human insulin 82 IU and metformin were used to maintain appropriate glucose levels. Biopsy of the lesion confirmed a diagnosis of acanthosis nigricans. At follow-up after 6 months, the plaque had slightly reduced and the thickness of the verrucous layer had decreased. The pruritus resolved and, after 12 months, the lesion had markedly reduced.

Author comment: *"In our case, local hyperinsulinemia due to repeated administrations of relatively high doses of human exogenous insulin at the same site might play a role in the development of acanthosis nigricans."*

Buzasi K, et al. Acanthosis nigricans as a local cutaneous side effect of repeated human insulin injections. *Diabetes Research and Clinical Practice* 94: 34-36, No. 2, Nov 2011. Available from: URL: <http://dx.doi.org/10.1016/j.diabres.2011.07.023> - Hungary 803066544