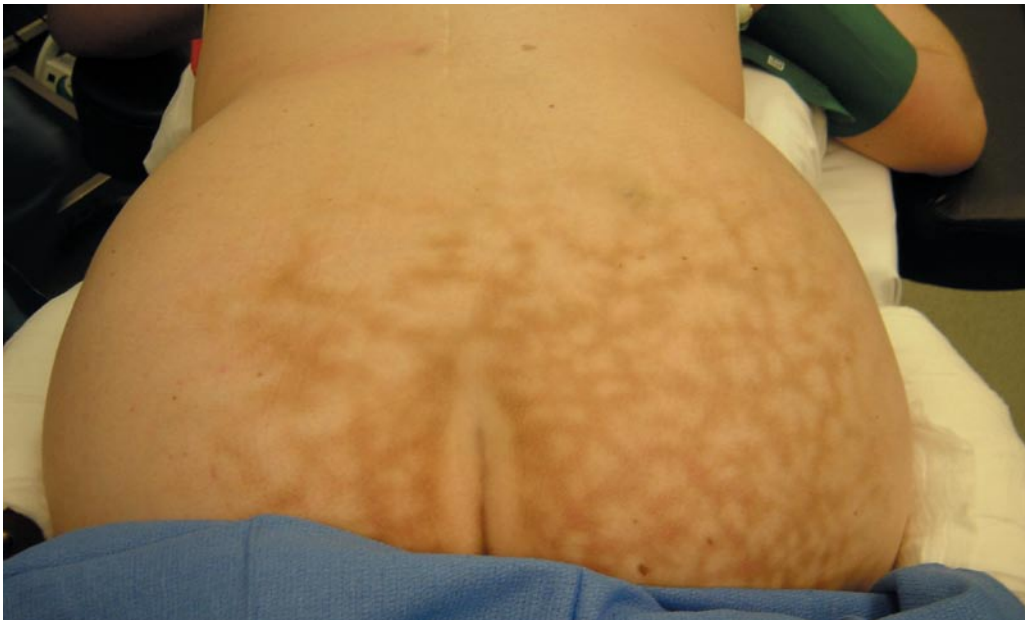
What Is Your Diagnosis?



An asymptomatic eruption was present over the buttocks of a 43-year-old woman for approximately one month. The eruption was noticed when the patient presented to her orthopedic spine surgeon for unremitting lower back pain.

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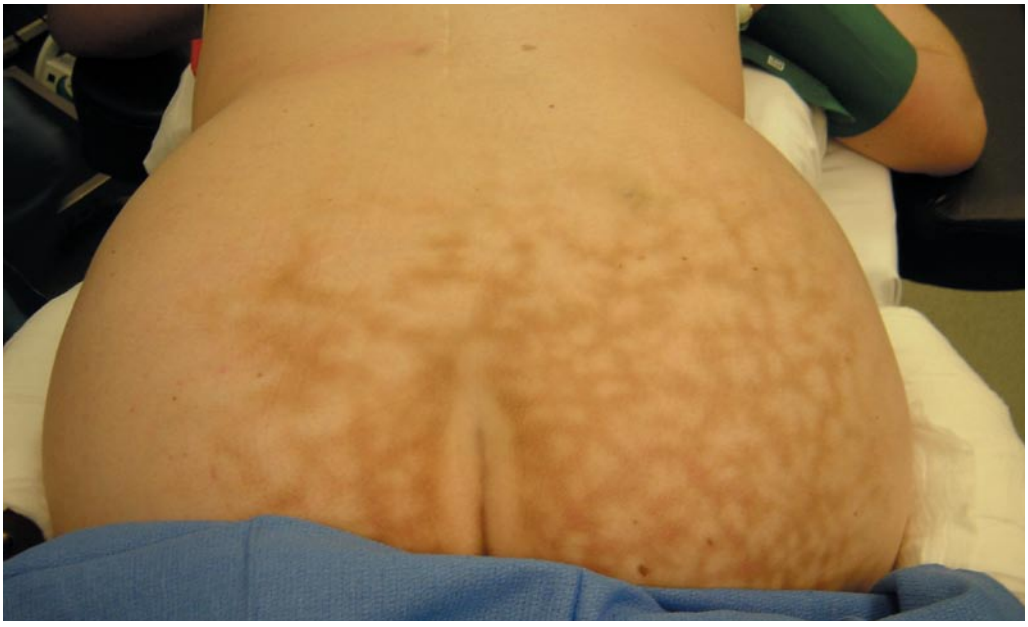
The authors report no conflict of interest.

The Diagnosis: Erythema Ab Igne



The patient, a 43-year-old woman, had an L4-5 lumbar fusion in 2002. She subsequently presented to her orthopedic spine surgeon for increasing unremitting lower back pain that had progressed over several months. She had been taking narcotics for paraspinal pain that was reproducible on palpation over the area of lumbar spinal instrumentation. She also reported using a heating pad for more than 10 hours a day while sitting at work and at home, which is vital to making the diagnosis. Her medical history was otherwise unremarkable. The patient noticed asymptomatic skin markings on her buttocks that had become more noticeable about a month prior to presenting to us in 2003. Her pain improved dramatically after removal of the surgical instrumentation.

Erythema ab igne typically presents as a reticular, erythematous, or hyperpigmented dermatitis that occurs after long-term exposure to infrared radiation, such as fireplaces, space heaters, steam radiators, and heating pads.[1] In the past, erythema ab igne frequently was seen on the lower legs of women who sat in front of open fires or furnaces. Although the incidence of erythema ab igne has declined since the introduction of central heating, different sources of heat in use today are becoming influential in the development of this condition. Case reports in the literature have demonstrated erythema ab igne resulting from use of reclining chairs with built-in heating units, laptop computers, and a heating/cooling blanket.[1-3] Erythema ab igne should alert physicians to the possibility of an underlying malignancy because many patients apply heating pads or hot water bottles to relieve long-term pain.[4] Case reports in the literature have described erythema ab igne in association with pancreatic cancer, pancreatitis, splenomegaly, and other malignancies.[5-8]

The main treatment for erythema ab igne is to remove the source of infrared radiation as soon as possible. The prognosis is excellent, with the lesions tending to fade on discontinuation of the infrared radiation source. Occasionally, pigmentary changes can persist, with the possibility of transformation into squamous cell carcinoma or Merkel cell carcinoma.[9] A number of cases have reported the development of both squamous cell carcinoma and Merkel cell carcinoma in the same lesion.[10-12]

A predilection for the lesions to transform into squamous or Merkel cell cancer is seen primarily in cases in which hydrocarbons are sources of heat.[13] To date, there have been no cases of carcinogenesis caused by the use of hot water bottles or heating pads.[14] Biopsies should be performed if any unusual skin surface changes occur, such as nodules or ulcerations. Residual hypopigmentation or hyperpigmentation can be treated topically with tretinoin or hydroquinone.[15]

Because of the histologic similarity between actinic keratosis and erythema ab igne, both characterized by squamous cell atypia, treatment with 5-fluorouracil also has been attempted. Sahl and Taira[16] reported that after a patient was treated with 5-fluorouracil for 2 weeks, results of a repeat biopsy no longer showed evidence of dysplastic keratinocytes. Thus, similar therapeutic regimens may be considered in the management of persistent erythema ab igne.

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