Implant infection in a transsexual with renal failure

Kieron Leslie, John Buscombe and Andrew Davenport

Departments of Nephrology and Nuclear Medicine, Royal Free Hospital, London, UK

Prosthetic breast implants can become a focus of infection. Although this is usually a relatively early complication, there has been a single case report of a breast implant becoming infected up to 40 years after surgery [1]. Many microbial organisms have been implicated including Propionibacterium acnes and Staphylococcal species [2].

A 36-year-old male to female transsexual patient with end-stage renal failure secondary to scleroderma hypertensive renal crisis presented with a 1 week history of feeling generally unwell, nausea and vomiting. She also complained of diarrhoea and chest wall tenderness over a region of previously treated shingles. On examination the patient looked unwell with a pyrexia of 38.6°C, was tachycardic and apart from a vesicular, crusting rash in a dermatomal distribution on the right side of the chest there was no clear septic focus. The patient received haemodialysis via a right internal jugular venous catheter and the exit site showed no signs of infection. The white cell count was elevated, $16.6 \times 10^3$ cells/ml with a marked neutrophilia and a C reactive protein of 215 mg/l. Blood cultures grew Staphylococcus aureus and antibiotic treatment was switched to intravenous gentamicin and flucloxacillin.

To determine if there was an underlying osteomyelitis a bone scintigraphy was performed with 550MBq Te-99m MDP (Figure 1a). There was no evidence for bone infection but some soft tissue activity was noted in the left breast and both buttocks, consistent with infection, so 48 h later a whole body gallium-67 citrate study was performed (Figure 1b), which confirmed that there was infection in the left breast and the right buttock. The pattern of abnormal uptake being consistent with a peri-implant infection. It is interesting to note that there was marked bilateral central breast uptake seen. This is observed in many women taking oestrogen based contraceptives and was thought in this case, probably to be due to exogenous oestrogen intake (male to female transsexual) [3]. The patient received a total of 6 weeks antimicrobial therapy (4 weeks intravenously), made a good recovery with normalization of inflammatory markers. Eleven months later the patient had further surgery in the United States, where both breast and buttock prostheses were replaced, she remains well.

References

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Fig. 1. The left-hand image (a) is an anterior and posterior whole body bone scintigram showing a normal distribution of tracer in the bones but soft tissue activity was seen in the left breast and both buttocks. The right-hand image (b) shows a gallium-67 citrate anterior and posterior whole body scan performed 48 h post injection. Confirming infection around a left breast and a right buttock implant. (The bilateral central breast uptake is due to exogenous oestrogens.)