Prior to removal it is essential to identify the position of the implant by palpation. Careful palpation of the proximal and distal ends of the implant is important. Incorrect placement of the implant deeper in the subcutaneous tissue and subsequent increase in the patient’s weight could result in difficulty with palpation of the implant. Difficulty with removal in the present case was probably due to insertion of the implant at an angle as seen in the ultrasound images (Figures 1 and 2). Additional factors might have been the patient’s weight gain and postinertion fibrosis.

Implanon can be visualised with all ultrasound transducers (i.e. high, medium and low frequency). However, the best results are obtained with very high frequency linear array transducers of 12 and 15 MHz. When using a low or intermediate frequency transducer, application of a large amount of gel enhances the visibility of the implant. The manufacturer’s medical information department has specified use of ultrasound frequencies above 8 MHz based on expert opinion from radiologists. In the present case, the radiologist decided to use a transducer of frequency 11 MHz.

The ultrasound probe is placed at right angles to the longitudinal direction of the implant. Following identification of the acoustic shadow cast by the implant, the exact position of the two ends is visible as a clear echogenic spot. The transducer is then rotated by 90° to obtain a longitudinal view of the implant.

The present case emphasises that in difficult cases in which the Implanon is not easily palpable, even though ultrasound localisation of Implanon is done prior to attempting removal, incorrect plane of insertion, weight gain, fibrosis and scar tissue from previous failed attempts can make subsequent removal difficult. Removal of Implanon in the ultrasound room immediately after localisation is best practice but may be difficult to organise. There have been no previous reported cases in the literature of difficulty in removal of Implanon due to weight gain. During the long waiting time incurred for removal of Implanon our patient lost a stone in weight, which possibly made the final surgical retrieval easier. However, in complex cases such delays can be reduced by establishing a clear referral system to particular surgeons and radiologists who have developed expertise in this area. A modification of the recommended removal technique may also need to be considered in difficult cases.

References