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IS FLUOROSCOPY NECESSARY FOR PLACEMENT OF INTERSTIM DEVICE FOR MANAGEMENT OF REFRACTORY URGE URINARY INCONTINENCE BY THE EXPERIENCED SURGEON?

Hypothesis / aims of study

The use of the Interstim device (ID) for management of refractory urge urinary incontinence (RUI) has been shown to be safe and effective. Studies reporting the efficacy of the ID describe placement of the device under fluoroscopic guidance (1). With increase experience surgeons may be able to place the ID using anatomic guidelines and sensory-motor response without the need of fluoroscopy. We report our results after placement of the ID using anatomic guidelines and sensory-motor response without the use of fluoroscopy.

Study design, materials and methods

A retrospective review of patients undergoing ID placement for management of RUI was performed. ID was placed mostly under IV sedation and local anaesthetic. After the patient is placed in the prone position, the needle insertion site is identified by measuring 9 cm from the tip of the coccyx and 1 lateral to the midline (figure 1). The needle is placed and proper placement through the S3 foramina is checked by identifying both a bellows response (pelvic floor contraction) and great toe plantar flexion. The lead is then placed in the usual fashion. Depth of insertion is checked via motor and sensory response of the patient. Presently, fluoroscopy is being performed in all our patients at the end of the procedure to identify the foramina and depth of lead penetration. This will allow us to confirm if our method of placement corresponds to a location similar to where the lead would have been placed under fluoroscopic guidance. Patients proceed to stage II ID placement if they report a subjective improvement of greater than 60% in urinary symptoms.

Results

Between 2000 and 2008 a total of 87 patients underwent stage I ID placement. Of these, 60 (76%) proceeded to stage II. Fluoroscopic guidance confirmed placement of the lead in the S3 foramine in all patients, of which 2 patients had the lead 2 and 3 cm deeper than the anterior sacral border. Both patients reported a successful clinical response and proceeded to stage II.

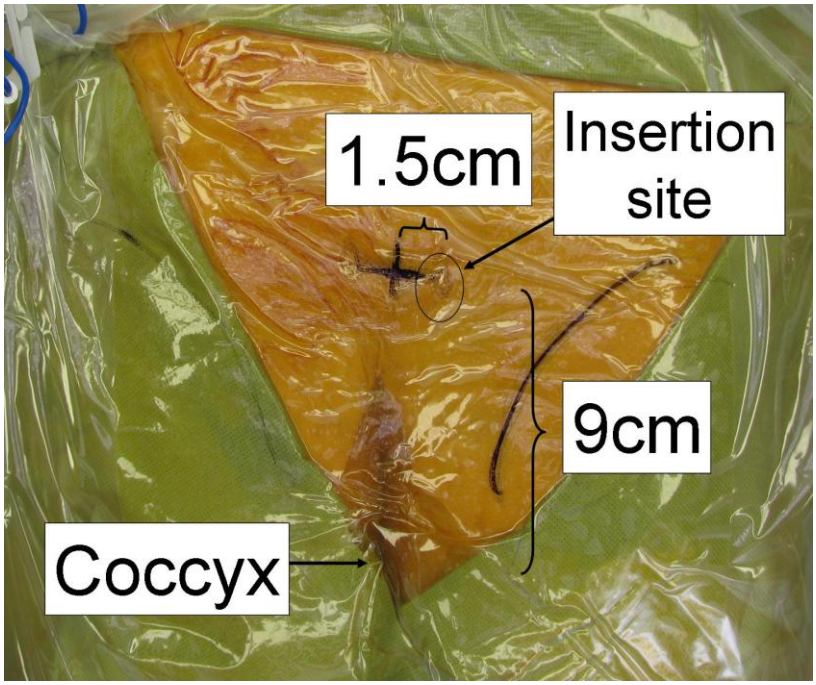
Interpretation of results

Placement of the ID using anatomic guidelines and sensory-motor response is an effective and safe means of ID placement. However, results must be interpreted with caution given subjective assessment of treatment success.

Concluding message

Experienced surgeons may be able to perform ID placement without the need of fluoroscopy and avoid radiation exposure. Ongoing study will compare lead placement with and without fluoroscopy. Further evaluation of objective data demonstrating efficacy and durability of response is necessary.

Figure 1: Anatomic markings for needle placement



References

1. BJU Int. 2007 Jan;99(1):107-10

Specify source of funding or grant	**None**
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What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
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Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**