

CT SCAN AFTER IMPLANTATION OF THE ARGUS MALE SLING FOR URINE STRESS INCONTINENCE IN MEN: PREDICTIVE VALUE AND CLINICAL RELEVANCE.

Hypothesis / aims of study

During follow up of men after implantation of an Argus male sling, a CT scan is performed regularly, i.e. in case of clinical signs of inflammation, continues urine incontinence or pain. It is not clear whether the CT scan is interpreted correctly, and whether the course of treatment depends on the results of the scan. CT scans of 24 patients were reviewed and compared to the course of treatment and findings during revision of the sling.

Study design, materials and methods

Thirty-four CT scans of 24 patients were reviewed retrospectively. The results were compared to the findings during revision in theatre. The noted course of treatment was retrieved from the clinical charts and also compared to the result of the CT scan, to determine if the course of treatment was influenced by those results.

Results

Of the 34 CT scans, 21 were performed to determine the position of the sling (group A), 10 were performed to affirm or exclude inflammation (group B), and 3 scans were performed to answer both questions (group C).

In group A the CT scan was not followed by an operation in 5 cases, so correspondence with operative findings cannot be determined. In 9 out of 16 operative revisions, the results of the CT scan corresponded with the findings in theatre. This was also the case in 5 out of 7 revisions in group B in and 2 out of 2 revisions in group C.

Of the 21 scans in group A, the course of treatment was not influenced by the result of the CT scan in 15 cases. That means the scan result was clinically relevant in 6 from 21 cases. This was also the case in 6 out of 10 scans in group B. The 3 scan results in group C did not influence the course of treatment.

Interpretation of results

Malpositions such as erosion of the rings through the M. rectus abdominus fascia are particularly difficult to recognise, as this was the case in several revisions, but not recognized on the scan. This could also be attributed to the learning curve of the radiologist. In one case the sling was found to be broken, but this was missed on the scan. Also the sling can appear to be positioned correctly, but the effective pressure on the urethra can still be too low to generate urine continence, in which case revision is needed.

Irritated tissue due to inflammation or an abscess is normally recognized, in which case the sling was revised or removed in theatre.

Concluding message

The interpretation of the position of the Argus male sling on CT seems to be quite difficult, especially for subtle position deviations. Even coarse abnormalities such as broken material can be missed. Taking in consideration that the course of treatment mostly depends on clinical presentation of the patient, performing a CT scan should be reconsidered.

If there are clinical signs of inflammation, performing a CT scan is clinically relevant and does influence the course of treatment.



Image 1. Dislocated left tacker of the Argus male sling in patient X (fully incontinent)

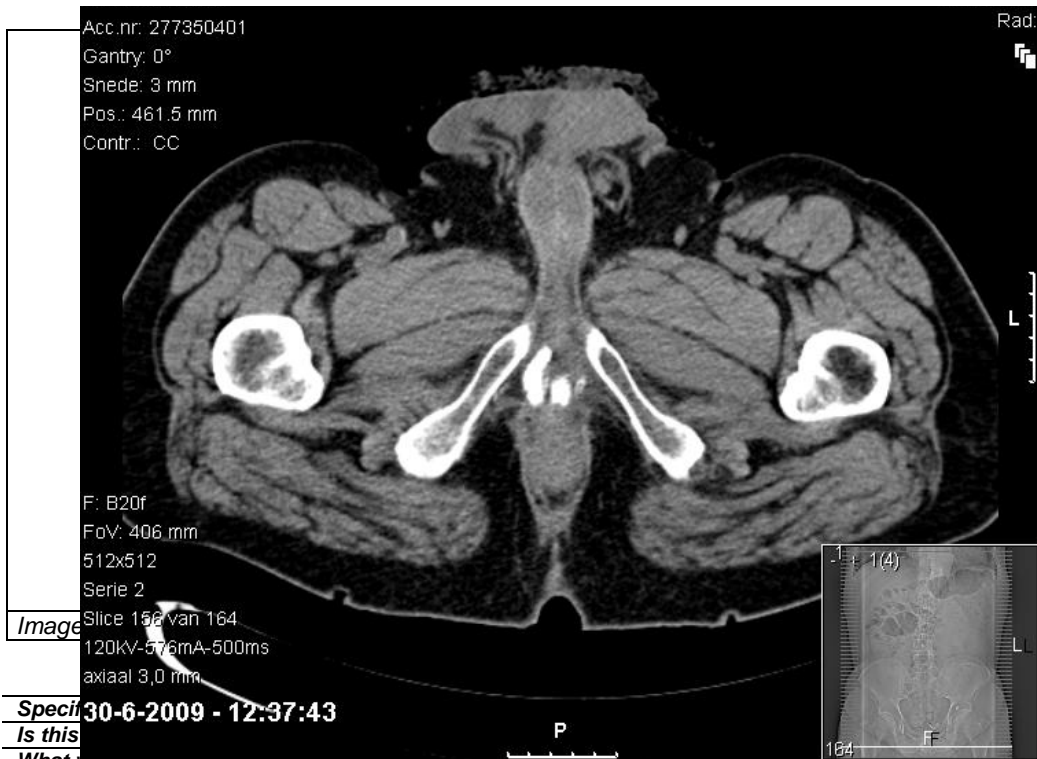


Image 2. Is this

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| What were the subjects in the study? | 100% M |
| Was this study approved by an ethics committee? | No |
| This study did not require ethics committee approval because | it was retrospective research with allready performed CT scans |
| Was the Declaration of Helsinki followed? | Yes |
| Was informed consent obtained from the patients? | No |