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# STRESS INCONTINENCE SURGERY IN THE UK (1). PRE-OPERATIVE WORK UP AND INTRA-OPERATIVE COMPLICATIONS. ANALYSIS OF THE BRITISH SOCCIETY OF UROGYNAECOLOGY DATABASE

Hypothesis / aims of study
The BSUG database is an audit tool available to UK consultants undertaking urogynaecological procedures. We have analysed the database concerning operations performed for stress continence.

Study design, materials and methods
The database has registered 142 centres and 68 have entered data. 44 centres (65%) are district general hospitals and these have entered 68% of the episodes. It is likely that the range of operations performed is representative of those being performed in the UK. On 26 Jan 2010 time there were 14,977 surgical episodes entered (97% performed after 1st Jan 2007). The median number of cases entered per active centre was 113 (range 1-1726, IQR 16-281). The following were excluded: 6,989 prolapsed surgery alone, 593 botox injections, 50 cystoscopy alone, 13 urethral diverticulum, 12 long term suprapubic catheters, 6 vaginal fistulas. This left 7,314 episodes of surgery for stress incontinence. We have analysed these by age, BMI and pre-operative work up together with the types of operation performed and intraoperative complication rates

Results
The mean age at surgery was 53.9 (sd 12.1, range 16-99) and BMI was 29 (sd 5.6, range 10-60).
Pelvic floor exercises were confirmed to have occurred in 5746 (78.6%) women. The supervision of these was recorded in 5,500 (physiotherapist 3868 (70%), continence advisor 905 (16%), nurse specialist 424 (8%), GP/self examination 303 (6%)).
An entry concerning use of urodynamics was made for 6,805 cases and had been performed in 6608 (97%) of these (USI 5206 (79%), mixed 1179 (18%), normal 164 (2.5%), other 19). A procedure specific information leaflet was recorded as being given in 5945 (77.2%) cases. 1,777 (24%) had prolapsed surgery together with their incontinence surgery. There were no deaths, neurological injuries or preoperative DVTs.

| Incontinence Surgery Type | Total (% of ops) | Repeat (%) | Local+/- Sedation | Visceral Injuries n (%) | Bleeding n (%) |
|---|---|---|---|---|---|
| Anterior repair + Bladder Neck Buttress | 125 (2) | 41(33) | 0 | Bladder injury 2(1.6) | |
| Artificial Urinary Sphincter | 1 (0) | 1 (100) | 0 | | |
| Laparoscopic Colposuspension/urethropexy | 18 (0) | 2 (11) | 0 | | |
| Colposuspension-Open | 127(2) | 26 (20) | 0 | Bladder injury 2(1.6) | >500ml blood loss 4(3.1)<br>Transfused in theatre 2(1.6) |
| Autologous Sling | 14 (0) | 12 (86) | 0 | Bladder injury 2(14) | |
| Cystoscopic BNI | 143 (2) | 61 (43) | 25 (17.5) | | |
| Non-Cystoscopic BNI | 82 (1) | 46 (56) | 38 (46) | | >500ml blood loss 1(1.2)<br>Transfused in theatre 1 (1.2) |
| Retropubic MUS | 4900 (67) | 337 (7) | 731 (15) | Bladder injury 160(3.3)<br>Bowel injury 1<br>Ureteric injury 1 | Vascular injury 2<br>>500ml blood loss 26 (0.5)<br>Transfused in theatre 3 (0.1) |
| Single Incision tape | 214 (3) | 17 (8) | 72 (33) | Bladder injury 1 (0.5) | |
| Stamey Procedure | 4 (0) | 0 (0) | 1(25) | | |
| TOT outside in | 805 (11) | 79 (10) | 52 (6) | Bladder injury 5 (0.6) | >500ml blood loss 5(0.5) |
| TOT Inside out | 881(12) | 136 (15) | 27 (3) | Bladder injury 7 (0.8) | Vascular injury 2 (0.2)<br>>500ml blood loss 5(0.6)<br>Transfused in theatre 1 (0.1) |
| Total | 7314 | 757 (10.3) | | | |

Interpretation of results
The centres entering data on the BSUG database are a mixture of both teaching centres (35%) and peripheral hospitals (65%). It is likely that participating centres are those most engaged in specialist urogynaecology and represent best current practice in

this field. In line with national guidance the majority of women have undergone a course of pelvic floor muscle exercises before surgery. However, nearly all also underwent urodynamic investigations (at variance with UK national guidelines). The vast majority of surgical procedures for stress incontinence are sub urethral slings and about 10% of these are repeat surgery. Bladder injury is reported for all sling procedures. Other complications are rare but common enough to warrant regular pre-operative counselling. Traditional surgery such as colposuspension and autologous slings seem to have higher intraoperative complications

Concluding message
Participation in national audit allows participants to compare their practice with national figures for surgical type and complication rates.

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| *Specify source of funding or grant* | **British Society Of Urogynaecology** |
| *Is this a clinical trial?* | **No** |
| *What were the subjects in the study?* | **HUMAN** |
| *Was this study approved by an ethics committee?* | **No** |
| *This study did not require ethics committee approval because* | **It is analysis of a national audit tool for urogynaecology surgery** |
| *Was the Declaration of Helsinki followed?* | **Yes** |
| *Was informed consent obtained from the patients?* | **Yes** |