

MAY 18–21 san francisco

Introduction & Aims

Treatment of testicular masses by inguinal orchiectomy (IO) can lead to both psychological and functional impairment¹. Between 10 and 54% of testicles removed by IO are found to only contain benign disease on latter histopathological analysis^{2,3}.

Testes-sparing surgery (TSS) may be a better option for managing indeterminate testicular lesions; those that are discrete and focal on ultrasound scan (USS) and are not classic of malignancy.

TSS consists of dissecting the tumour away from testicular tissue, and using intra-operative frozen section analysis (FSA) for diagnosis.

If the tumour is benign, the testicle can be salvaged, but if malignant the operation should proceed to an IO⁴. TSS can sometimes be considered for managing malignant tumours, especially in those with a solitary testicle or bilateral tumours⁵.

Aims:

- . To determine the lesion diameter and histopathological diagnosis of patients whom underwent TSS.
- 2. To determine the testes-sparing rate for those whom underwent TSS for benign and malignant testicular lesions.
- 3. To define the complication and recurrence rate for tumours managed by TSS

Methods

. 90 cases of TSS with FSA were performed in 85 patients for indeterminate testicular lesions at 3 tertiary referral centres between 2007 and 2017 Patients with benign lesions were managed by TSS only

Patients with malignancies were managed by further IO, unless otherwise predetermined

No authors had any conflict of interest



Outcomes of testes-sparing surgery for the treatment of testicular masses: A multi-centre study

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Treatment Pathway



Results

Demographics

Nº of Patients Nº with Bilateral Lesions Nº with Solitary Testicle Mean Patient Age (Years) Mean Follow Up (Months)

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<u>Benign</u>	54 (60%)	<u>Malignant</u>	36 (40%)
Adenomatoid Tumour	1 (1)	ITGCN	1 (1)
Adrenal Rest Tumour	2 (2)	Mitotic Leydig	1 (1)
Cyst	15 (17)	Mixed Germ Cell	3 (3)
Granuloma	1 (1)	NSGCT	4 (4)
Leydig Cell Tumour	17 (19)	Poor Differentiation	1(1)
Scar	16 (18)	Seminoma	20 (22)
Sertoli Cell Tumour	2 (2)	Teratoma	6 (7)
Average USS Diameter in mm (Range)	9.13 (1.9-33)	Average USS Diameter in mm (Range)	13.2 (3.7-44.0)

The images to the left show an indeterminate testicular mass on USS (A), a mass after dissection via TSS (**B**), and an USS of a testicle after TSS (**C**)

85	
8	
17	
34 (17-76)	
20 (0-86)	

ozen Section Analysis

Results

<u>Management</u>

Testes-Sparing Su Nº of Obligates

Nº of Recurrences

Time Until Recurre

Additional Inquina Intraoperatively **Delayed** Operation

Additional Treatm Adjuvant Chemothe **Adjuvant Radiother**

Testes-Sparing Rat

Post-Operativ

Pre-operative Teste Post-operative Test Post-operative Erec Post-operative Libido Reduction

Conclusion

TSS is a suitable treatment option for benign testicular lesions, and may lead a testes-sparing rate of up to 87%. TSS may be a suitable treatment option for testicular malignancies in patients with a solitary testicle or bilateral lesions. However, these patients must be followed up with regular post-operative USS surveillance due to relatively high rates of disease recurrence.

References

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> University College London Hospitals **NHS Foundation Trust**

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<u>urgery Only</u>	$\begin{array}{l} \textbf{Malignant}\\ \underline{n=36} \ (\%) \end{array} \\ \textbf{17} \ \textbf{47} \\ \textbf{13} \ \textbf{(36)} \\ \textbf{solitary testicle - 8} \\ \textbf{bilateral tumours - 4} \\ \textbf{testosterone deficiency -1} \\ \textbf{4} \ \textbf{(24)} \end{array} \end{array}$	Benign n=54 (%) 47 (87) 11 (20) solitary testicle - 2 bilateral tumours - 7 testosterone deficiency - 2 0 (0)
ence in Months (Range)	31 (2-72)	_
<u>al Orchidectomy</u>	19 (53) 13 (36) 6 (17)	7 (13) 2 (4) 5 (9)
nent erapy rapy	20 (56) 4 (11) 38.9%	0 (0) 0 (0) 87.0%
ve Function osterone Deficiency stosterone Replacement ectile Dysfunction	TSS Only <i>n=64 (%)</i> 6 (9) 11 (17) 5 (8)	IO n=26 (%) 2 (8) 13 (50) 2 (8)

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8 (13)

5 (19)

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