

IPSO-SIOP Meeting
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**SURGERY IN PATIENTS WITH TESTICULAR
MALIGNANT GERM CELL TUMORS :
COMPLIANCE TO SURGICAL GUIDELINES AND RESULTS IN
THE ITALIAN COOPERATIVE STUDY (ICS) on MGCT**

Giovanni Cecchetto, Luigi Piva, Alessandro Inserra, Fortunato Siracusa, Luna
Boschetti, Paolo D' Angelo, Monica Terenziani on behalf of the ICS-MGCT

Dept. of Pediatric Surgery, University Hospital of Padua - Italy



Italian 2004 Study-Testicular MGCT

Aim

Analysis of:

- Compliance to the surgical guidelines
- Treatment Results

in patients with testicular MGCT +/- retroperitoneal nodal involvement (without distant metastases) enrolled in the Italian 2004 Study on MGCT

Italian 2004 Study-Testicular MGCT

Patients

- 42 evaluable patients from 15 Italian Centers

Enrollment: January 2004 – December 2010 (the study is still open)

- **Age:**

-14/42 < 2 y tumor size: range 1-4 cm
13 α FP high

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-28/42 13-18 y tumor size: range 2-9 cm
24 α FP, 8 β HCG: high

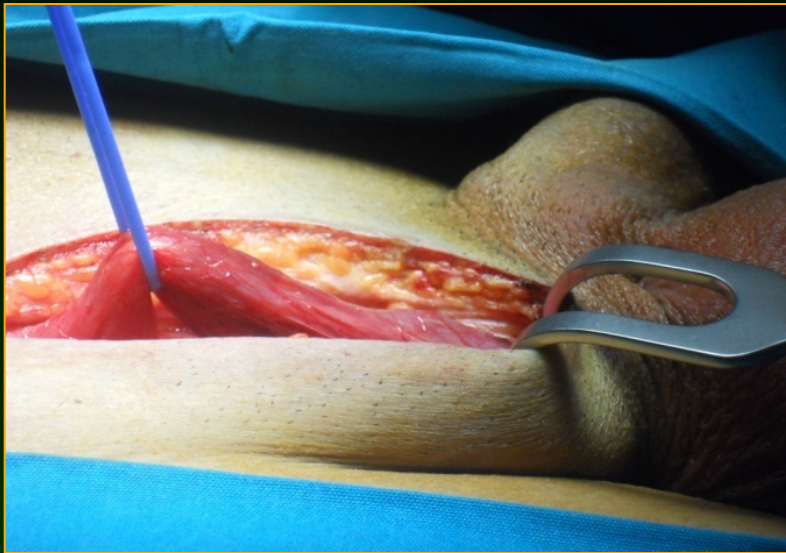
- **Symptoms:** testicular mass 85%, occasional 10% , acute 5%

Italian 2004 Study-Testicular MGCT

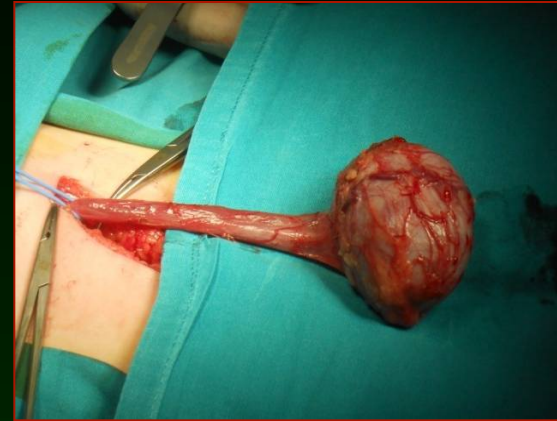
Surgical guidelines

- ✓ **Inguinal approach with vascular control before mobilization of the testis**
- ✓ **Biopsy of the mass with frozen section examination**
- ✓ **Orchiectomy with high ligation of the cord**
- ✓ **Hemiscrotectomy was recommended in case of previous scrotal approach or scrotal involvement**
- ✓ **Initial retroperitoneal LN biopsy only in case of doubtful imaging data**

Surgical approach



Previous scrotal approach



Staging & Treatment after primary surgery

Stage	Definition	Therapy
St.1	Complete excision with inguinal orchifuniclectomy + decrease of markers + hemiscrotectomy if initial scrotal approach	Any further treatment
St.2	Scrotal involvement after hemiscrotectomy and/or RPN enlargement <2cm	Chemoth. (PEB x3) + RPND after CT, if suspected residual disease
St.3	RPN involvement >2 cm	Chemoth. (PEB x3/4) + RPND after CT, if suspected residual disease

Italian 2004 Study-Testicular MGCT

Results: 42 pts ⁽¹⁾

Stage	# patients	Treatment	Outcome (17-94m.-med.48)
St.1	26	23 : adequate 3/26:initial scrotal orchiectomy 1/3 hemiscrotectomy 2/3 with scrotal orchiectomy no further therapy after postop. decrease of α FP	first CR: 23 3/26 RPN relapse (at 3,6,9 m) after initial adequate approach. Second CR after S + CT
St.2	4	All : adequate No RPND	first CR: 4
St.3	12	All : adequate RPND in 12 (Histology neg:11)	first CR: 12

Legenda= RPN: retroperitoneal node; RPND: retroperitoneal node dissection;
CR: complete remission

Italian 2004 Study-Testicular MGCT

Results: 42 pts ⁽²⁾

- All patients are alive without disease :
 - 39 first CR
 - 3 second CR

Other information:

- 1 postoperative complication: scrotal hematoma treated conservatively
- A testicular prosthesis was positioned in 3/28 adolescents during primary surgery

Relationship among age, stage and histology

- **14 Patients < 2 y:**
 - 12/14 had a St.1 disease
 - 10 had a pure YST
 - 13 α FP high

- **28 Patients between 13-18y:**
 - 14/28 (50%) had a St.2 or St.3 disease
 - 27/28 had a mixed malignant histology tumor

Relapses

3 / 42 cases

- All 3 were in St.I pts: 2 adolescents, 1 infant
- Recurrence at 3,6,9 months after initial adequate therapy
- Site: Retroperitoneal nodes
- All cured with CT+S

Italian 2004 Study-Testicular MGCT

Remarks

- Surgical guidelines were correctly followed in 40/42 cases (95%), treated in 15 centers
- Outcome has been excellent (f.u. not long)
- Efficacy of CT in St.II and III: in most cases complete reduction, and histology negative in 11/12 cases after RPLND
- Regional relapses occurred only in St.1 patients, and were cured

Conclusions

- Good compliance to surgical guidelines
- Results similar to those in other series

Conclusions

- Good compliance to surgical guidelines
- Results similar to those in other series
- 2 points

Thoughts ⁽¹⁾

In general we don't recommend the immediate insertion of a prosthesis

In our series 3 patients had this procedure, without any problem

Is a testicular prosthesis an acceptable option during primary operation in adolescents or should be always delayed?

Thoughts ⁽²⁾

- Scrotal orchiectomy did not worsened the outcome of 2 patients who did not receive further treatment after decrease of markers

Our indications for Hemiscrotectomy in patients with MGCT

- Scrotal invasion or residual disease (also uncertain)
- Scrotal contamination
 - Trans-scrotal open or needle biopsy
 - Trans-scrotal orchiectomy

Rogers DA et Al. Indications for Hemiscrotectomy in the management of Genitourinary Tumors in Children. JPS 30:137, 1995

If hemiscrotectomy is not performed, the patient is upstaged and treated with chemotherapy

Indications for Hemiscrotectomy in patients with MGCT

Literature

ADULTS

- Leibovitch I et Al. The clinical implications of procedural deviations during orchiectomy for non seminomatous testis cancer J Urology 154:935 1995
- Capelouto CC et Al. A review of scrotal violation in testicular cancer: is adjuvant local therapy necessary? J Urology 153:981 1995
- Aki FT et Al. Is scrotal violation per se a risk factor for local relapse and metastases in St.I nonseminomatous testicular cancer? Urology 56:459 2000

CHILDREN

- Schlatter M et Al. Excellent outcome in patients with St.I Germ Cell Tumors of the testes. A Study of the CCG/POG JPS 38:319, 2003
- Billmire DF et Al Malignant GCT in childhood Semin Pediatr Surg. 2006 Feb;15 (1):30-6.
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Scrotal approach

Some Authors state that hemiscrotectomy may be not required when a scrotal orchiectomy has been performed without violation of the tumor capsule and markers decrease; however, high resection of the cord structures is recommended

Scrotal approach

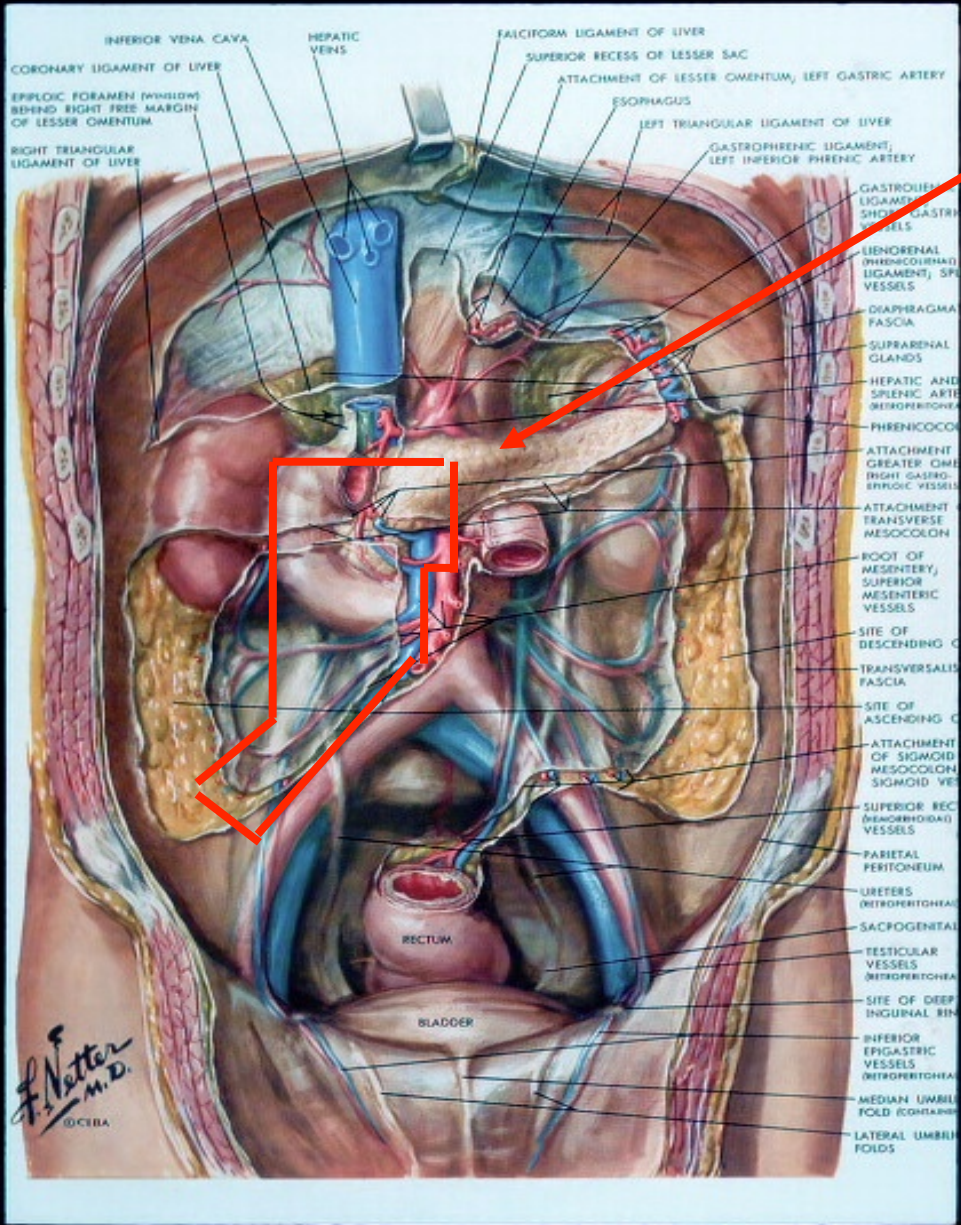
Some Authors state that hemiscrotectomy may be not required when a scrotal orchiectomy has been performed without violation of the tumor capsule and markers decrease; however, high resection of the cord structures is recommended

- Was hemiscrotectomy really necessary in our two cases ?



“Prato della Valle” square
In Padua - Italy

Thank you



RIGHT NERVE SPARING TEMPLATE RPLND

Viscera and superior mesenteric vessels are retracted cranially, exposing aorta, IVC and renal vessels.

Boundaries: right ureter laterally, superior margin of renal vessels cranially, the left edge of aorta, IMA caudally in the midline, junction of the ureter crossing the iliac caudally on the right

The pre-aortic “split” is confined to the level of IMA to limit ejaculatory damage (providing all tissue appears not involved)