



## Surgery of residual masses after chemotherapy cancer testicle: Illustration through an observation

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### ABSTRACT

We report a case of a young patient with a residual mass surgery of a testicular cancer which was outside the recommended territories. This surgery was justified by the persistence of mass after chemotherapy, and more than a year after surgery our patient presents good evolution both clinical, biological and radiological.

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### Introduction

Chemotherapy has revolutionized the prognosis of testicular cancer, obtaining frequent healings, including the metastatic stage. But at the end, it is common that visible metastases in the initial scanner persist. Then comes the surgical excision. It is therefore important to emphasize the therapeutic role of this surgery despite the fact that it exposes to a higher risk of complications. We report a case of residual masses extended outside the consensual limits: supra hilar and supra clavicular which is rarely described after chemotherapy.

### Observation

Mr O.S 26 years old, with no particular history admitted to the hospital for support of a large painless purple left lasting for 6 months without notion of associated fever. A clinical examination found an afebrile patient in good condition. It has left a big purple hard and painless evolving for several months with a left supra clavicular mass measuring about 5 cm. The latter is hard, mobile, and insensitive. The realized laboratory tests showed a high rate of alpha-fetoprotein to 9064 ng / ml, with total  $\beta$ -HCG 0 IU / ml, high LDH 240 IU / L. Blood count and renal function are normal. Scrotal ultrasonography visualized a left testicle increased estimated size 8x10cm, it is heterogeneous and irregular contours. The patient underwent orchiectomy during the month of January 2013. Histological examination of the surgical specimen was in favor of a mixed germ cell tumor involving the yolk sac and mature teratoma. A staging was then called: abdominal pelvic CT thorax (CT-TAP) helped highlight the chest upstairs supraclavicular lymphadenopathy left measuring 5.6 / 6.4 cm, in addition right and left latero-aortic formations were observed in the abdominal and pelvic floor. They are rounded, dense and measuring respectively 5,1x3,4x10,7cm and 27,6x2,9x5,5cm. In addition they were also sub diaphragmatic and mesenteric nodes. Given these elements, the tumor was classified: T1N3M1aS2 (TNM) stage IIIB equivalent to intermediate prognosis group of IGCCCG classification [3]. The patient

was sent to the oncology where he received 4 cycles of BEP (latest cure the 07-31-2013). The evolution was marked by decreased tumor markers essentially alpha fetal protein to 2.78 ng / ml and LDH 214 U / L. But with persistence of supraclavicular lymphadenopathy (Fig 1 and Fig. 2) and the retro peritoneal mass (Fig 3, Fig 4).

The patient underwent the 11-20-2013 a total mass excision by an enlarged subumbilical umbilical median laparotomy allowing the extraction in one block of the sub diaphragmatic mass that stretched from the iliac region to beyond the left renal pedicle, adding a left supraclavicular lymphadenectomy reaching directly the mass first during the same operation. The postoperative course was simple. Pathological examination was in favor of a mature teratoma of the pieces of the dissection. The tumor markers and the successive re-evaluations scanners, over a period of over a year confirm complete remission.



Figure1. Supraclavicular lymphadenopathy left physical examination



**Figure 2. CT image showing supraclavicular lymphadenopathy left**



**Figure 3 . CT image showing the lumbar level residual mass after chemotherapy (CT)**



**Figure 4. CT image showing a hiatal mass after chemotherapy (CT)**

### Discussion

The so-called catch residual retroperitoneal masses surgery is actually very different of an initial incomplete surgery ( whether staging lymphadenectomy or completed after chemotherapy ) to late relapses through the salvage surgery justified by the failure of chemotherapy and the growing teratoma is typically manifested during chemotherapy. Three criteria define this syndrome : the

growth of the tumor mass , normalization of tumor markers and the absence of active tissue within the teratoma . [1]

After orchiectomy and chemotherapy on account of 4 cures BEP (bleomycin etoposide, cisplatin) every 21 days , tumor markers in our patient were normal. But CT monitoring showed persistent retro peritoneal masses and a left supraclavicular lymphadenopathy. In front of the normalization of tumor markers and tumor dimensions 1cm higher after chemotherapy masses [2], the indication for surgical resection was laid . In our study the dissection was away from the usual territories. He took the left iliac nodes, inter aorto-caval (Fig 5) , latero aortic , hilar , supra- hilar to the space below médiastinal later , with a complement of left supraclavicular lymph node dissection. It differs from perfectly codified surgeries and described by the team of Donohue and Skinner respectively for transperitoneal ways and retro peritoneal [4].

The choice of a transperitoneal or retroperitoneal route is often business school, but the retro peritoneal gives very good results on the supra- hilar area and ipsilateral posterior retrocrural space. However, it is more devastating than the transperitoneal and do not achieve full bilateral lymphadenectomy. [5, 6] In our case we opted for a transperitoneal midline laparotomy . Despite the very high morbidity surgery this evolution was favorable in our patient

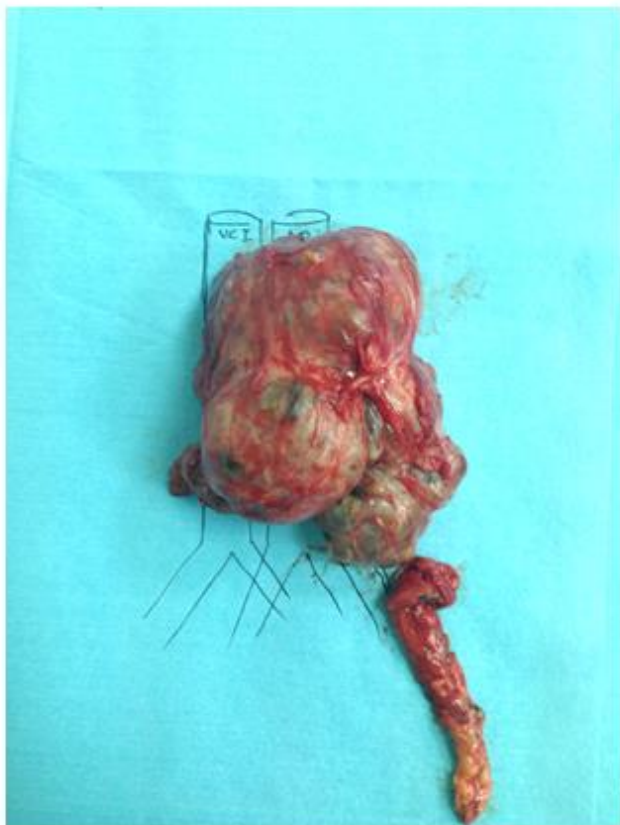
Unlike our case , early relapses are possible and these relapses are instead often related to a lack of initial dissection whether noncompliance with reference areas of incomplete dissection leaving in place the tumor tissue or the inability to complete excision generally corresponding to ganglionic large masses retro peritoneal [7 , 8] .On 14 cases of relapse after surgery , Heidenreich emphasizes the incompleteness of the initial dissection on 12 cases [9] . Histology usually corresponds to the presence of mature teratoma in 59% of cases in the series of Mc Kernian on 34 patients [10]. Malignant transformation and growth of t ratomateuses relapse leads to emphasize the need, after chemotherapy, to adhere strictly to the rules of this surgery corresponding to a real curettage. The achievement of lymphadenectomy through laparoscopy has long been the subject of criticism related to the limits of this dissection appearing more restrictive compared to those recommended in open surgery exposing a potentially higher risk of retro peritoneal relapses. Similarly, insufficient decline in most of the series does not assess the use of chemotherapy in principle after lymphadenectomy. [11] Late relapses are described at the end of 2 years even beyond 5 years giving lung metastases, liver, brain, which explain the need for rigorous monitoring. [12, 13]

Moreover disorders of ejaculation that reported our patient is the result of the lesion of sympathetic fibers in the vicinity of large vessels converging at the aortic bifurcation . If this complication is particularly common evaluated 89% of Jackson in bilateral lymphadenectomy [14] , the realization of modified neck dissection decreases in frequency but also a preservation can be achieved which is rarely the case in our surgery most complete

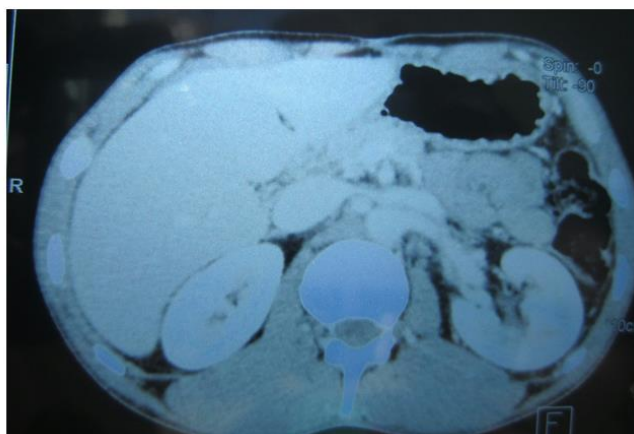
The NSGT monitoring arrangements consist in the realization of systematic clinical examination coupled with assays of tumor markers with TAP scanner outside other call signs can motivate the achievement of other examinations. The frequency of conducting such reviews was consistent with our pace of surveillance on a decline of more than a year based on clinical examination done 4 times , tumor markers dosed 4 times, thoracic CT abdomen and pelvis done 2 times



(last in January 2015 fig. 6) were all common. Literature reports a survival rate around 95 % at 5 years [3] for patients based on initial classification accurate, a secure monitoring can be able to indicate an adequate remedial treatment.



**Figure 5. The specimen**



**Figure 6. Control CT after a year with total remission.**

Conflict of Interest : The authors declare no conflict of interest  
**Conclusion**

Residual masses constitute an evolving complication of NSGT can support current or distance from an initial chemotherapy , justifying the continuation of a prolonged monitoring of patients with teratomatous component within

the residual mass after chemotherapy. Only a diagnosis and early treatment allows the fullest possible surgery can guarantee a low rate of progression.

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