DOI: 10.17650/1726-9776-2023-19-1-129-132

Гигантская опухоль яичка в Юго-Восточной Азии: клинический случай

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В статье представлен клинический случай гигантской опухоли яичка, впервые описанный в Малайзии и, по нашему мнению, во всем регионе Юго-Восточной Азии. Мужчина 21 года обратился с жалобами на безболезненное увеличение мошонки. После первичного осмотра и диагностических исследований, по данным компьютерной томографии было выявлено наличие забрюшиннной лимфаденопатии (множественных лимфатических узлов в парааортальной области), пациенту в срочном порядке была проведена операция правосторонней радикальной орхифуникулэктомии с высоким лигированием через паховый доступ. Пациент поздно обратился за медицинской помощью в связи с этическими проблемами и страхом перед лечением.

Ключевые слова: гигантская опухоль яичка, орхифуникулэктомия, смешанные герминогенные опухоли

Для цитирования: Aizat Sabri I., Yusof M.R., Lee F.Y. и др. Гигантская опухоль яичка в Юго-Восточной Азии: клинический случай. Онкоурология 2023;19(1):129–32. (На англ.). DOI: 10.17650/1726-9776-2023-19-1-129-132

Largest testicular tumour in South-East Asia: a case report

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We present the largest testicular tumour that first ever reported in Malaysia and we believed first reported in Southeast Asia. A 21 years old Malay gentleman presented to us with painless large scrotal swelling. After the initial workup and investigations were done and followed by a CT scan which yield a multiple para-aortic lymph nodes, the patient was scheduled listed in the earliest list for high ligation right orchidectomy with an inguinal approach. The patient seeks treatment at that point because he can't bear the embarrassment and fear of the treatment.

Keywords: largest, testicular tumour, orchidectomy, mixed germ cell

For citation: Aizat Sabri I., Yusof M.R., Lee. F.Y. et al. Largest testicular tumour in South-East Asia: a case report. Onkourologiya = Cancer Urology 2023;19(1):129–32. DOI: 10.17650/1726-9776-2023-19-1-129-132

Case report

A 21-year-old Malay gentleman with a chronic history of painless scrotal swelling for the past 1 year, claimed the tumor progressively increased in size, and recently presented with 2 weeks history of scrotal pain. The pain was described as dragging in nature. He never sought any medical attention before this presentation. There was no preceding history of trauma, constitutional symptoms, and any other past medical history. He was able to disguise the size of tumor by wearing loose pants eventually.

Upon initial clinical assessment, there was right testicular swelling measuring 20 × 10 cm. The upper pole was noted to be hard in consistency whereas the lower pole is cystic and firm. The left testis was about 1.5 cm. It was nontender bilaterally and had no discoloration. The scrotal skin was intact and not involved.

Baseline blood investigations were sent along with Beta HCG, LDH, and AFP. The patient's Alpha Feto-Protein was 969 IU/mL, a high Beta HCG of 21.4 mIU/mL,

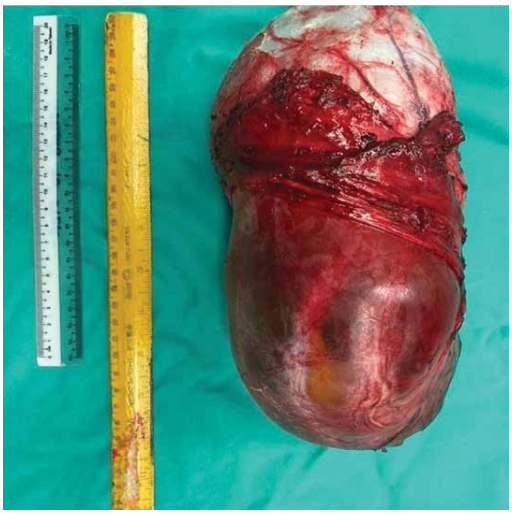

Fig. 1. *Huge right testicular tumour has been removed completely*

Fig. 2. *The tumour weighted for 2140 gram*

and LDH of 1176 U/L. Other blood parameters are normal. Further assessment was done using ultrasonography of the scrotum which revealed a large mixed echogenicity mass occupying the scrotum measuring 9.7 × 8.9 × 11.4 cm (AP × W × CC). There was also regional adenopathy as evidenced by the presence of multiple enlarged lymph nodes over the para-aortic region, the largest measuring 3.0 × 2.4 cm (AP × W).

We proceeded with radical right orchidectomy via the inguinal-scrotal approach. Spermatic cord was identified and high ligation was performed. The skin was incised down to the base of the scrotum where the dissection was performed. No skin has been removed intraoperatively they were intact. Post dissection, we found a huge right testicular tumor measuring 30 × 15 cm weighed 2.14 kg (Fig. 1, 2). The tumor adhered to the surrounding area, not breeching to the skin, and was able to release.

The tumour histological evaluation showed a mixed germ cell tumour comprising embryonal carcinoma (60 %) and yolk sac tumour (40 %). The tumour extends into the epididymis and spermatic cord. The margin is negative. Lymphatic invasion is evident. Pathological staging grading revealed pT3 pN0 pM0 S1 (Fig. 3–5).

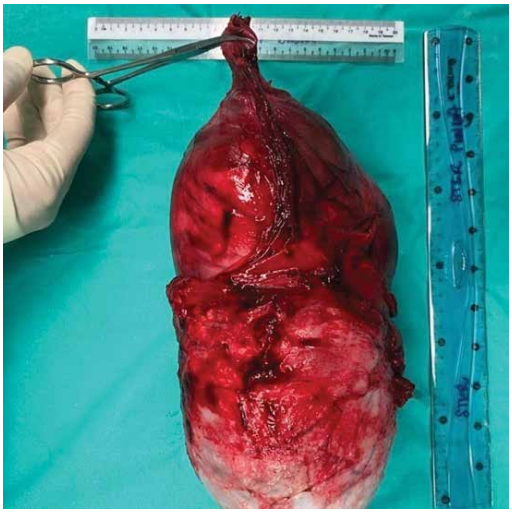

Fig. 3. *Cord structure with tumour*

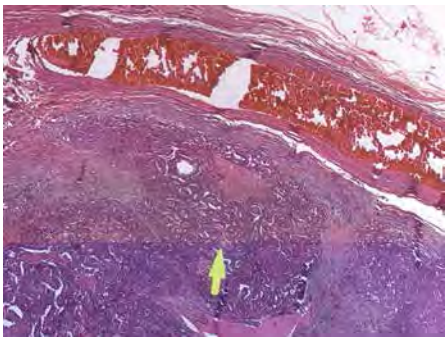

Fig. 4. *At 40× magnification, showing the yolk sac component of the mixed germ cell tumor. The tumor abuts the tunica vaginalis above it*

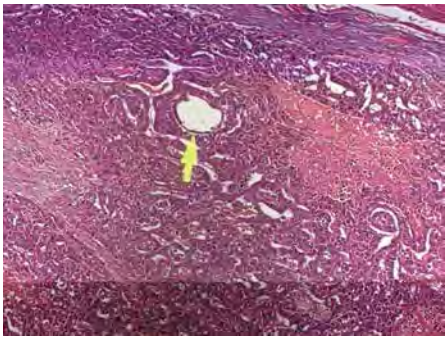

Fig. 5. *At 100× magnification, an embryonal carcinoma component of the tumor is represented by gland formation, as highlighted by green arrow*

Discussion

Testicular cancer is one of the commonest cancers in men ranging from 15–35 years of age [1]. However, a giant testicular tumour is a rare presentation of testicular cancer. In Malaysia only a handful of cases giant testicular tumour were reported in the literature, with our case was the largest reported nationally [1]. The mixed GCT is the second most common testicular tumour after seminoma and accounts for 30–40 % of all testicular tumours [2]. To our knowledge, we believe that this case is probably the largest testicular tumours reported in South East Asia and one of the largest mixed GCT globally with its size appears third only to tumours reported by S.R. Jackson et al. in 2020 and T. Kin et al. in 1999 based from HPE report [2–4]. In our case, the late presentation can be attributed to a lack of healthcare awareness, social stigma, and the patient's inactive sexual lifestyle.

In this case, the LDH value is 1176 U/L reflecting a high tumour burden due to its large size. Serum AFP level is 969 ng/mL which was raised likely due to yolk – sac tumour component which comprises of 40 % of the tumour. The remaining 60 % of the embryonal carcinoma component contributing the bulk of the tumour indicates a guarded prognosis for this case. A study done by N. Atsü et al. in 2003 concluded that the presence of embryonal carcinoma component is the only significant risk factor of disease relapse [5]. Meanwhile, Dunphy et al. in 1988 reported those with a predominant embryonal carcinoma component have higher risk of developing metastasis following orchidectomy. Hence, it is imperative for close surveillance of this patient during post – operative period to detect early recurrence or metastasis.

CT TAP done during pre-operative shows both mediastinal, aortocaval and para-aortic lymph node metastasis infiltrating inferior vena cava resulting thrombosis up to bilateral common iliac vein. Thus, he was started on anticoagulant and warranted early chemotherapy to reduce the risk of worsening thrombosis and nodal metastasis. This patient also may benefit from IVC filter insertion later to avoid pulmonary embolism.

Radical inguinal orchidectomy via the inguinal approach is the treatment of choice for this case to avoid scrotal skin breach. M. Al-Assiri et al. [6] and E.J. Jihad et al. [7] already described this method of approach. An inguinal incision is made and extended medially to 2 cm above the pubic symphysis to locate the spermatic cord structure and for better accessibility during tumour release and removal. Lymphatic and pedicle were controlled at first before manipulation is done to dissect the tumour away from the overlying fascia. High ligation and removal of the right spermatic cord structure were done and cautious tumour release was done to avoid the base of penis involvement due to the huge size of the tumour during the operation. Noted the tumour has huge mixed cystic and solid component hence needed cautious release of the capsule to avoid rupture leading to the seedling of tumour cells onto the scrotal skin. A portion of the inferior scrotal skin is adhered to the tumour however still able to be released without scrotal skin involvement. 12 mm size drain was inserted intra-operatively after tumour removal to aid post-operative drainage of reactive fluid to avoid massive collection which may lead to infection and persistent post-operative pain later.

However, retroperitoneal lymph node dissection (RPLND) was not done in the same setting. The role of RPLND is controversial in this patient due to the nature of nodal metastasis involving part of IVC hence resulting higher risk of aforementioned vessel injury during operation.

Both cases of giant testicular tumour reported by S.R. Jackson et al. and A. Reekhaye et al. opted for inguino-scrotal approach whereby in both cases, the tumour is excised en-bloc with the densely adhered scrotal skin [2, 4]. There are few reviews of literature regarding giant testicular tumour whereby in most of the cases reported patient underwent a few cycles of chemotherapy for tumour debulking before proceeding with surgical removal [8]. Nevertheless, upfront surgery should always be considered as the primary mode of management unless the clinical condition warranted immediate chemotherapy first [6, 7]. To the best of our knowledge, we believe that this is the only reported case of upfront surgery of a giant testicular tumour successfully resected with a clean margin via an inguinoscrotal approach without scrotal skin involvement, especially in a district setting.

Conclusion

Currently, there is an increase in public awareness of these quite uncommon conditions particularly in the younger generation aged ranging from 20–35 years. The earlier detection could make the prognosis better and improve the patient's oncological outcome.

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Конфликт интересов. Авторы заявляют об отсутствии конфликта интересов.
Conflict of interest. The authors declare no conflict of interest.

Финансирование. Работа выполнена без спонсорской поддержки.
Funding. The work was performed without external funding.

Соблюдение прав пациентов. Пациент подписал информированное согласие на публикацию своих данных.
Compliance with patient rights. The patient gave written informed consent to the publication of his data.

Статья поступила: 26.01.2023. **Принята к публикации:** 14.04.2023.
Article submitted: 26.01.2023. **Accepted for publication:** 14.04.2023.