Cryptorchidism in a young man with learning disabilities returns as advanced testicular cancer

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Testicular abnormalities in men with intellectual disabilities is reported to be as high as 10.8%.[1] These same men are much less likely to present early with testicular cancers and have been demonstrated to have poorer prognoses.[2]

Case report

Our case describes the story of man in his twenties who first presented to hospital with an episode of choking while eating at home. On admission, aspiration pneumonia was diagnosed and an examination in the emergency department revealed a large, firm abdominal mass.

After recovery from the pneumonia, further history and examination was possible. The patient's medical history consisted of cerebral palsy, learning disability, epilepsy and previous aspiration episodes. The only abdominal history involved an undescended testicle that had first been identified 4 years ago and planned for orchidopexy, but, unfortunately, this had been lost to follow-up. Examination confirmed only one testicle in the scrotal sac and a large abdominal mass, causing distention from the pubis to just above the umbilicus.

Further investigations were organised in the form of computed tomography (CT) imaging, tumour markers and biopsy. The CT scan demonstrated mass effect from the abdominal mass, compressing the right ureter (Figure 1, A) and inferior vena cava (Figure 1, B) with enlarged para-aortic nodes. Tumour markers demonstrated an alpha-fetoprotein (AFP) of 3.0ng/mL (0–15), a beta-human chorionic gonadotrophin (βhCG) of 210mIU/mL (0–5) and a lactate dyhydrogenase (LDH) of 1,490U/L (120–250) and histology confirmed a diagnosis of pure seminoma.

After diagnosis was confirmed, the patient proceeded to theatre. He underwent midline laparotomy and excision of a large abdominal seminoma (Figure 3). Surgery was a success, and 3 days later the patient was discharged from the acute hospital, completing recovery in a smaller district general hospital, with return home 10 days after surgery. Follow-up continues with the medical oncologists.

Discussion

Testicular cancer is atypical in that it becomes less common as men get older. It represents the most common cancer in men aged between 15–49, although only 1% of total male cancers.[3] Risk factors include undescended testicles (cryptorchism), family history, microlithiasis and previous personal history.[4] Most men present having made an incidental discovery of a unilateral testicular lump on self-examination.[5]

Considering undescended testes being a major risk factor, and self-examination being the major method of discovery, education around examination of the genitals is of paramount importance. Men with intellectual disabilities are more likely to have cryptorchidism and are less likely to self-examine.[1] This means they're less likely to identify that a testicle is missing from the scrotum or maintain surveillance on present testicles. As such, men with intellectual disabilities are more likely to have testicular cancer and are more likely to present late.[1]

In addition to presenting late, our case highlights the issue of loss to follow-up. Maintaining relationships with patients with learning difficulties is known to present multiple challenges, and research exists suggesting methods to overcome these barriers.[6,7] Active involvement of caregivers and clear communication allow for more effective long-term relationships and could well help with following up this cohort.

A large cohort study by Afshar et al.[2] reviewed the notes of over 150,000 men with learning disabilities. This study highlights the significantly increased risk that patients with learning disabilities face from testicular cancer. They concluded that more

needed to be done in the education of patients and carers so that early identification and improved outcomes could be achieved.

Fortunately for our patient, surgical management was a success, and following continued care under our colleagues in medical oncology, a complete recovery can be expected. However, an earlier detection could well have avoided the need for such drastic surgery. As such, in addition to the conclusions of Afshar et al., we would emphasise the importance of robust follow-up in patients with learning disabilities. Following the identification of an undescended testicle, prompt fixation should be planned, and inclusive, transparent communication had with both patient and caregiver to ensure effective follow-up.

Figure 1: Axial CT slice.

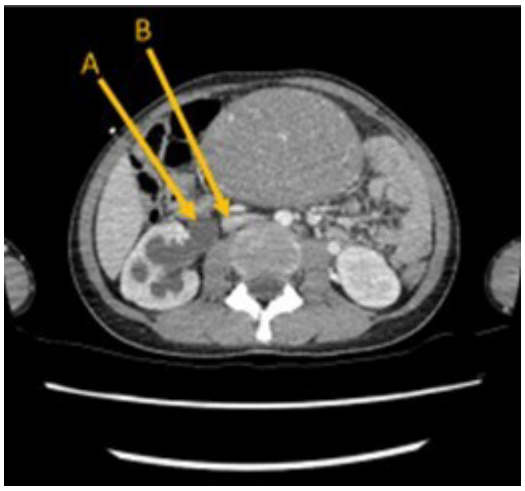


Figure 2: Coronal CT slice.

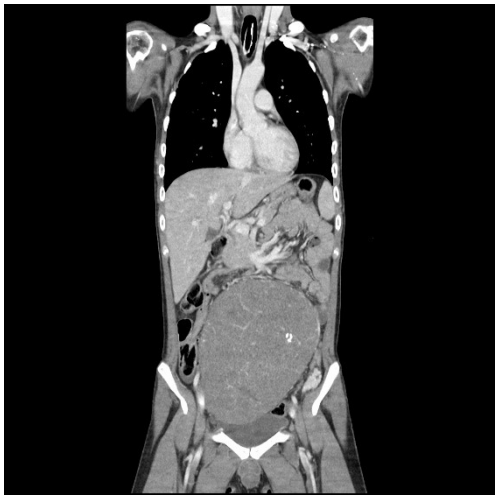
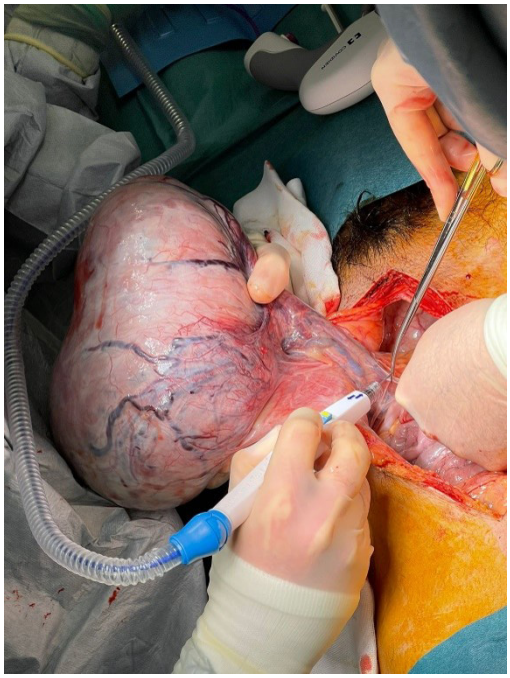


Figure 3: Excision of large seminoma.



COMPETING INTERESTS
There are no potential conflicts of interest.

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REFERENCES

1. Wilson J, Adeline P, Bungaroo D, et al. Promoting Testicular Self-Examination and Awareness Amongst Young Men With Intellectual Disabilities: A Parallel Intervention Randomized Study. J Dev Disabil. 2018 Sep 1;23(3):57-70.
2. Afshar M, Patel HRH, De-Santis M, et al. Do Learning Disabilities Affect Testicular Cancer Survival: A National Cohort Study Between 2001 and 2015. Eur Urol Oncol. 2020 Dec;3(6):773-9. doi: 10.1016/j.euo.2018.12.008.
3. National Health Service. Overview: Testicular cancer [Internet]. 2022 [cited 2022 Jul 21]. Available from: https://www.nhs.uk/conditions/testicular-cancer/.
4. Stephenson A, Eggener SE, Bass EB, et al. Diagnosis and Treatment of Early Stage Testicular Cancer: AUA Guideline. J Urol. 2019 Aug;202(2):272-81. doi: 10.1097/JU.0000000000000318.
5. Khan O, Protheroe A. Testis cancer. Postgrad Med J. 2007 Oct;83(984):624-32. doi: 10.1136/pgmj.2007.057992.
6. Woodall A, Morgan C, Sloan C, Howard L. Barriers to participation in mental health research: are there specific gender, ethnicity and age related barriers? BMC Psychiatry. 2010 Dec 2;10:103. doi: 10.1186/1471-244X-10-103.
7. Nind M. Conducting qualitative research with people with learning, communication and other disabilities: Methodological Challenges. 2008:1-24.