

Testicular Torsion in Cerebral Palsy – Resident's Grey Area

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ABSTRACT

The association of testicular torsion and cerebral palsy is a well-known fact. But the infrequent presentation to emergency room makes the clinician sceptical. Such a presentation often puzzles the residents regarding the diagnosis and the treatment. Here we present a case of an adolescent boy aged with cerebral palsy 13 years with incessant crying and not feeding well for last 3days. Right inguinal region showed a tender globular swelling with absence of testis in scrotum along with signs of septicaemia. The inguinal exploration was performed under general anaesthesia which revealed gangrenous right testis. Right orchidectomy and left orchidopexy was performed and the patient recovered well. This case is reported for its complexity due to lack of reliable history, delayed presentation and associated comorbidities posing challenges to the treating surgeons.

Keywords: Cerebral palsy, Comorbidities, Diagnostic dilemma, Resident, Torsion of testis

CASE REPORT

An adolescent boy 13-year-old was brought to the emergency department by his parents for incessant crying. He was mentally challenged with IQ of less than 20 with incomprehensible speech. He was irritable and not feeding well for 3days. He was found to be a known case of cerebral palsy (CP) and was on treatment with barbiturate for seizures. There was no recent history of seizures, vomiting.

On examination, the patient was febrile (101.4°F) with tachycardia (pulse rate-102/min), tachypnea (respiratory rate-34/min) and moderate dehydration. Abdominal tenderness was elicited in both lower quadrants with mild guarding. Bowel sounds were also sluggish. Examination of right groin revealed a solitary 3x4 cm² globular swelling in inguinal region which was firm, very tender, and irreducible with restricted mobility and there was no impulse on coughing [Table/Fig-1]. Scrotal examination revealed absence of both testicles, and hence cremasteric reflex could not be elicited. However, the scrotum looked normal with normal skin and rugosities.

Abdominal X-ray and Ultrasound (USG) of the abdomen were normal. USG of the groin and scrotum showed the left testis in the superficial inguinal pouch while the right testis was at the superficial inguinal ring and enlarged (? torsion). We made the clinical/working diagnosis of torsion of the right testis or right sided obstructed inguinal hernia.

The patient was resuscitated with intravenous fluids, and broad spectrum antibiotics were initiated. Surgical exploration of right groin was performed under general anaesthesia. The mass turned out to be torsion of the right testis which was oedematous and already gangrenous [Table/Fig-2]. The testis was excised after securing the vascular pedicle. The left testis could be pulled down easily into the scrotum and through a separate incision it was anchored to the scrotal wall (orchidopexy) by two silk stiches. The patient was started on oral feeds on post-operative day one along with barbiturate. He had an uneventful recovery and was discharged on postoperative day five.

DISCUSSION

Testicular torsion (TT) is a known surgical emergency with an incidence of 1 in 4000 males below 25 years of age [1]. Majority of the patients with TT presented more than three days after the onset of symptoms [2]. Our case is no exception to this and presented on 3rd day suggesting negligence on caretakers' part.

Huang WY et al., [3] has noted two peaks of TT, highest being in boys aged 10–14 years and followed in those aged <1 year and also found the proportion of orchidectomy were higher in these groups. Medical insurance, black race, nonemergency room admission source and surgery at a children's hospital or unit were noted as additional independent predictors of orchidectomy [3]. TT is seen on the right side more often than the left side and most are in the age group of 11-20 years [2]. Our case is no exception, belonged to same age group of 10-14 and presented with a swelling in right groin however the factors like insurance; race has fewer roles in an Indian set up.



[Table/Fig-1]: Swelling in right inguinal region with scrotal rugosity and bilateral absent testes



[Table/Fig-2]: Gangrenous testis visualised on inguinal exploration

Two main types of TT are described namely, intra-vaginal (most common type in adolescents & adults) and extra-vaginal (seen mainly in infancy). The critical time for intervention being 6-8 hours since onset of pain in order to salvage the testes [2].

Absent cremasteric reflex is the most sensitive physical finding for diagnosing testicular torsion [4]. Proposed mechanism is cremasteric muscle spasticity [5], which is marked, more in CP. In our case the reflex could not be elicited as the testis was pulled up and there was problem in its identification in the mass.

Acute scrotum is rightly described as a diagnostic dilemma. Very often torsion is mistaken for epididymo-orchitis, longer the torsion is not recognised, more the condition looks like orchitis due to development of fever [6]. Vasudeva et al., [7], has also stressed the need of urgent evaluation to exclude TT (accounts for 80-90% of paediatric acute scrotum) in a paediatric patient who develops an acute scrotum. The authors feel when clinical findings and USG

reports do not corroborate; the clinical diagnosis should guide the treatment. The recommended procedure for gangrenous torsion testis is orchidectomy with prophylactic orchidopexy of the opposite testis [6] and the same was done for our case.

Caretakers of CP patients can often be aggressive due to previous surgical experiences, frustration with healthcare system [8]. The authors wish to convey the importance of systematic counselling of the caretakers by the residents at the time of presentation to the emergency department to avoid any confrontation

Co-morbidities with CP like seizures, spinal deformities can complicate the management of surgical emergencies in both intra-operative and postoperative period stressing the pivotal role of residents. The association of TT with CP though rare, is well documented and the authors feel the need to share their first hand information with the surgical community.

CONCLUSION

Testicular torsion in CP is an area not commonly encountered in emergency by residents. Lack of reliable history, delayed presentation, associated comorbidities poses great challenges to the treating surgeons. Thus, we have made an effort to add our experience to the literature.

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