

NMDAR Positive Encephalitis- A Rare Presentation with Bilateral Dermoid Cysts

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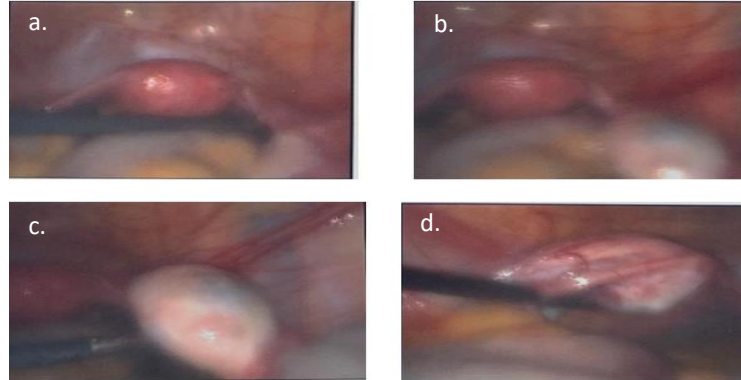
Background:

- ❑ The NMDA receptor is a protein in the brain that helps control thoughts, mood and movements, and therefore antibodies against NMDA receptors are likely to have an important role in altering these functions.
- ❑ It affects young people; 40% of cases are < 18 years .
- ❑ Once a patient has been diagnosed with NMDAR-antibody encephalitis, an underlying tumour should be looked for.
- ❑ Recent reports suggest that around 20-30% of women have an underlying tumour.
- ❑ The most common tumour found in women is a benign ovarian teratoma thought to stimulate the production of the NMDA receptor antibody.

Case report:

A 17 year old girl was admitted in Critical Care and diagnosed with NMDAR encephalitis. She deteriorated, became unresponsive and had a tracheostomy. A CT scan showed bilateral 3cm ovarian dermoid cysts and indicated the possibility of paraneoplastic syndrome. Following Gynae-oncology MDT discussion she underwent an uncomplicated laparoscopy and bilateral cystectomies on day 44 of her admission to ITU.

Histopathology confirmed the presence of mature ganglion cells, nerves and brain tissue. Patient has recovered following the procedure and was extubated.



The pictures were taken during laparoscopy

- a) panoramic view of pelvis*
- b) Left ovarian dermoid*
- c) left ovarian dermoid*
- d) right ovarian dermoid*

Discussion:

NMDA encephalitis is a well reported condition with a proven association with ovarian teratomas. Diagnostic delay and variable presentation increases the morbidity in these patients. In this case there was a significant delay in diagnosis and the gynecology team was involved in her care 3 weeks following her admission by that time she had developed co morbidities. This situation can be avoided by increasing the awareness about this condition and keeping a low threshold for investigation specially in young women.

Conclusion:

A very low threshold for pelvic imaging should be considered in patients presenting with NMDAR positive encephalitis. Early referral to gynae must be sought to improve prognosis of the patient. Robust pathways for diagnosis and early MDT involvement will ensure a better outcome.