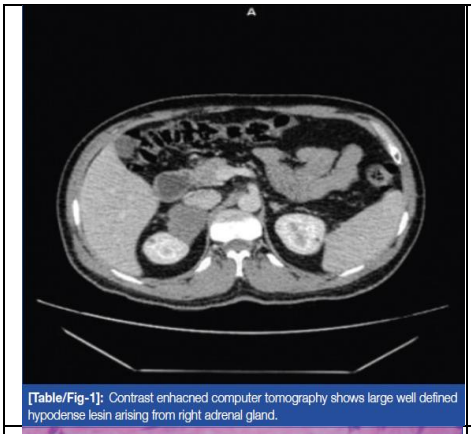
CASE OF THE WEEK – 24.11.2022
Adrenal Ganglioneuroma- A Rare Site Entity

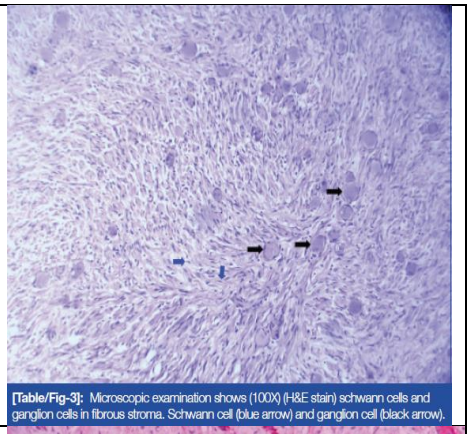
History:

A 35-year-old male patient came to urology outpatient department with chief complaints of diarrhoea and mild pain in right side of abdomen since one month.

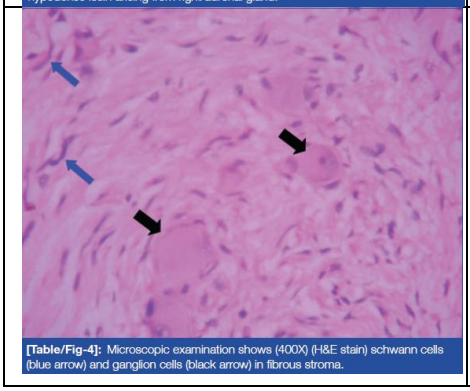


[Table/Fig-1]: Contrast enhacned computer tomography shows large well defined hypodense lesin arising from right adrenal gland.

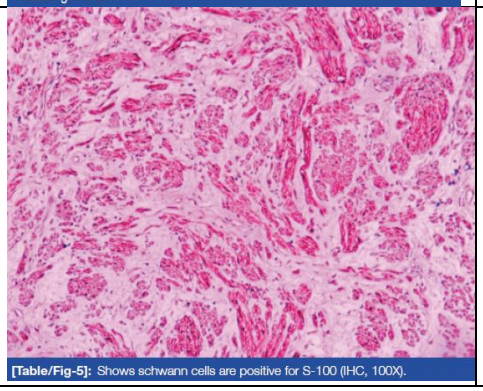
[Table/Fig-2]: Gross picture shows cut section of specimen with tumour nodule measuring 6x5 cm.



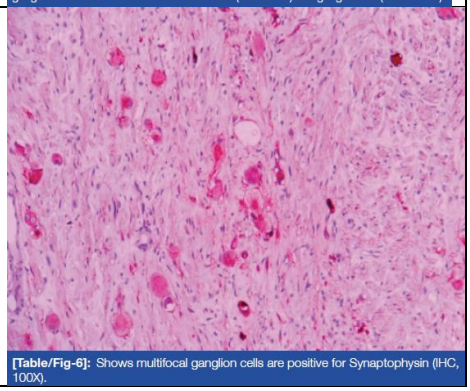
[Table/Fig-3]: Microscopic examination shows (100X) (H&E stain) schwann cells and ganglion cells in fibrous stroma. Schwann cell (blue arrow) and ganglion cell (black arrow).



[Table/Fig-4]: Microscopic examination shows (400X) (H&E stain) schwann cells (blue arrow) and ganglion cells (black arrow) in fibrous stroma.



[Table/Fig-5]: Shows schwann cells are positive for S-100 (IHC, 100X).



[Table/Fig-6]: Shows multifocal ganglion cells are positive for Synaptophysin (IHC, 100X).

Histopathology:

Microscopic examination revealed structure of adrenal cortical parenchyma along with adjacent tumour tissue. Tumour tissue showed ganglion cells, Schwann cells and fibrous stroma. Ganglion cells were distributed in dispersed pattern within fibrous stroma. Ganglion cells have compact eosinophilic cytoplasm with distinct cell borders, single eccentric nucleus and prominent nucleoli. Schwann cells were arranged in small interlacing fascicles. These spindle cells exhibited wavy nuclei, eosinophilic cytoplasm and were separated by loose stroma. On immunohistochemistry tumour cells were positive for S-100 and ganglion cells were positive for Synaptophysin.

Discussion: Ganglioneuroma is a rare benign differentiated tumour which originates from the primitive neural crest cells and is composed of Schwann cells and ganglion cells. They are rarely found in the adrenal gland. Adrenal ganglioneuroma is rare tumour and its presentation in adrenal gland is even rare the present authors report the case during presentation in the adrenal gland.

References:

1. Yu Y, Zeshen W, Jiaha Z, HongWei W, Bentao S. Adrenal Ganglioneuroma: A rare case report and literature review. Urol Nephrol Open Access. 2017;5(5):01-02.
2. Smylonas K, Schizas D, Economopoulous KP. Adrenal ganglioneuroma: What you need to know. World J Clin Cases. 2017;5(10):373-77.
3. Rhondeau G, Nolet S, Latour M, Braschi S, Gaboury L, Lacroix A, et al. clinical and biochemical features of seven adult adrenal ganglioneuromas. J Clin Endocrinol Metab. 2010;95(7):3118-25.