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Primary Neuroendocrine Tumor Of The Testis: A Rare Testicular Tumor

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Abstract:*Primary Neuroendocrine Tumors Of The Testis Are Rare And Account For Less Than 1 Percent Of The Testicular Tumors. The Cell Of Origin For The Same Is Unknown. There Have Been Only 60 Reported Cases Of Primary Net Of The Testis. We Report The Case Of A 23-Year-Old Boy, Who Presented With Heaviness In The Right Testis. A High Orchidectomy Was Carried Out. The Histopathology Was Reported As Primary Neuroendocrine Tumor Of The Right Testis, And Was Positive For Synapthosin, Chromogranin A On Immunohistochemistry.*

Key Words*: Neuroendocrine, Tumor, Testis*

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I. Introduction:

Primary Neuroendocrine Tumors Mainly Arise From The Embryonic Gut. Primary Net Of The Testis Is Very Rare And Is Seen In Young Adult Males. We Report A Case Of A Primary Net In A Young Adult Male.
Case Report: We Present The Case Of A 23-Year-Old Boy, Who Presented With Heaviness In The Right Testicular Region Since 6 Months, Intermittently. There Was No Associated History Of Trauma Or Weight Loss Or Any Other Significant History.

On Physical Examination A Hard Mass Was Felt In The Lower Pole Of The Testis, Testis Not Felt Separately From The Mass. Rest Of The Physical Exam Was Normal. On Ultrasonography Of The Scortum: Well Defined Solid Mass, 3x3.5cm, With Calcific Densities Was Seen In The Right Testis. Pre Operative Levels Of Beta Hcg, Alpha-Fetoprotein And Ldh Were Normal. A High Radical Orchidectomy Was Done And Tumor Markers Remained Normal Post Operatively. On Gross Examination The Cut Surface Showed Well-Delineated Solid, Yellow Tumor With Intact Tunica.

Microscopically, The Tumor Is Composed Of Organoid Nests And Cords, Glands Lined With Cuboidal Cells. The Cells Possess Scanty Granular Acidophilic Cytoplasm With Stipled Round Nuclei With Moderate Ansionucelosis And Mitotic Activity. Immunohistochemistry Was Positive For Synaptosin And Chromogranin A.Postoperative Tc Hynic Toc Scan Showed No Somatostatin Receptor Expressing Net Elsewhere In The Body.

Figures:

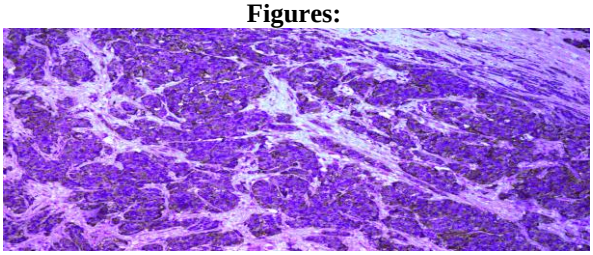

Fig1: Synaptosin Positive

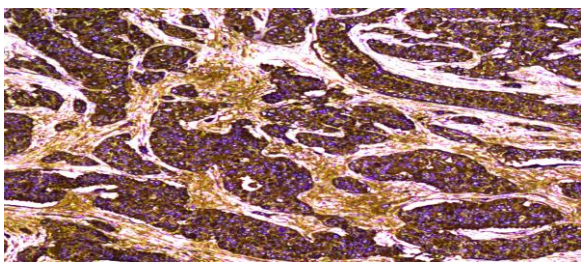

Fig 2: Chromogranin Positive

II. Discussion:

The Incidence Of Net Of The Testis Is Low Being Less Than 1 Percent (1). Approximately 60 Cases Have Been Reported In Literature (2). The Average Age Of Presentation Is In The 4th Decade, Ranges From The Second To Eight Decade Of Life (3).

The Cell Of Origin However Remains Unclear. According To The Whoclassification Of 2010, These Tumors Are Of Two Types: Neuroendocrine Tumors And Neuroendocrine Carcinomas. (4) Testicular Tumors Are Divided Into 2 Subtypes: Primary And Metastases. (5)

On Microscopic Examination These Tumors Are Characterized By Sheets And Nests And Glans Lined With Cuboidal Cells. These Cells Have Granular Scanty, Acidophilic Cytoplasm With Stippled Round Nuclei.

The Differential Diagnosis Should Include Metastatic Net, Teratoma Of Testis And Seminoma.

Radical Orchidectomy Remains The Treatment Of Choice. Adjuvant Treatment For The Same Is Controversial And Depends On The Grade Of The Tumor;Metastases To Lung And Lymph Nodes Are Treated With Adjuvant Chemotherapy. Patients With Associated Carcinoid Syndrome Have Poorer Prognosis.

All Patients Should Also Undergo Postoperative Measurement Of Serum Somatostatin Or Urinary 5-Hydroxyindoleacetic Acid (5-Hiaa) Levels To Rule Out The Presence Of Metastatic Disease Or An Alternative Primary Malignancy. Resection Of Metastatic Or Extragonadal Primary Sites May Prove Curative (6). Biochemical Evaluation (Measurement Of 5-Hiaa Or Somatostatin) Should Be Performed Every 3 Months For 1 Year And By Annual Follow-Up Thereafter, Because Delayed Recurrence Have Been Reported At 17 Years.

Along With Regular Physical Examinations, Imaging Should Be Done Too.

III. Conclusion:

Primary Neuroendocrine Tumor Of The Testis Is Very Rare. At 6 Month Follow Up, Our Patient Is Disease Free. Long-Term Follow Up Is Mandatory In Such Patients.

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