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RESEARCH ARTICLE

EWING'S SARCOMA - A CASE REPORT

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Abstract

Ewing's sarcoma usually arises in the bones of children and adolescents. I herein report a 10-year-old boy with Ewing's Sarcoma in the second rib of right chest. The diagnosis was confirmed by histo-pathological studies, and several imaging studies. He was suffering from this problem since 6 months. Thoracotomy was done under general anesthesia. Cricket ball size tumour was excised and sent for histopathology. The biopsy report confirmed Ewing's Sarcoma. The patient was discharged aftèr 3 wèeks of treatment.

Introduction:-

Ewing's Sarcoma is a cancerous tumor that usually begins growing in a bone or soft tissue around bones, cartilage and nerves. It occurs primarily in children and young adults, often appearing during the teen years[1].This is the second most common type of cancer in found in children. The Term Ewing's Sarcoma was given by James Ewing (1866-1943)[1]. It Usually affects people from the ages 10 - 20 years with slight male preponderance. It has been reported that changes in the DNA of the cell leads to Ewing's Sarcoma after birth[2].

A Case Report :-

A 10 years old male child was admitted to our hospital suffering from pain and swelling in right side of the chest from last six months. Chest x-ray showed mass lesion compressing in the right upper lobe of the lung. Ct - thorax was done that showed calcified lobulated mass arising from the right side of the second rib.

Right thoracotomy was performed through second right intercostal space and tumor was removed along with local infiltration via fine dissection. The lobulated mass consisted of bones and soft tissue measuring 6cmx5cmx4cm. Intraoperative and postoperative period was uneventful.

Micro:

Histopathological examination of the specimen showed neoplastic proliferation of small round to oval cells. Cytomorphologically these cells were 2-3 times in size of mature lymphocyte cell. These cells were seen to invade the vessel wall for forming a pseudo rosette pattern. Massive area of degeneralism was found to be present with trabeculae of bone tissues present in between. Giant cells and granuloma were not found to be present.

Final Diagnosis

Small cell Neoplasia consistent with Ewing's Sarcoma**.**

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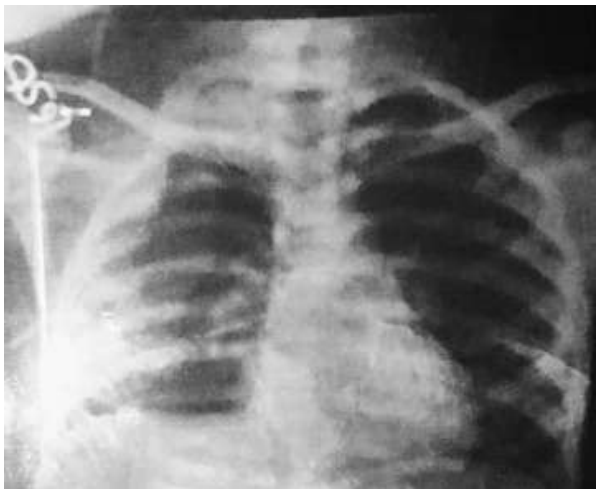

Fig.1:- Chest X ray.

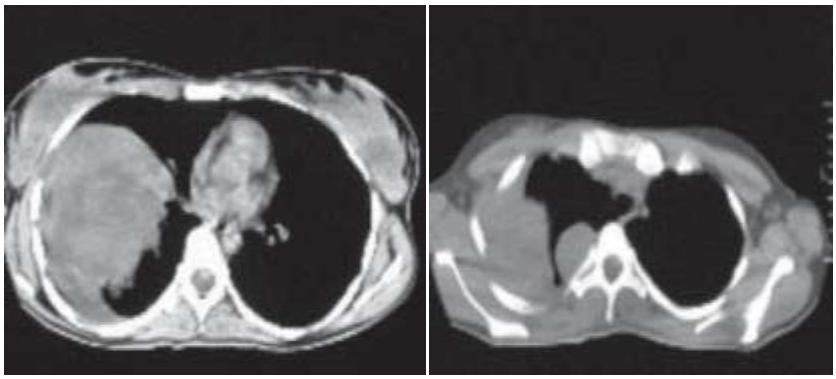

Fig. 2:- Ct thorax report.

Discussion:-

Ewing's Sarcoma usually affects people from the age 10-20 years and has a high rate of being cured[1,3]. Types of tumour are:

1. Bone Tumour — (87%) of Ewing's Sarcoma happens in bone after appearing in thigh bones, pelvis, rib.
2. Soft Tissue (Extraosseous) Tumour affects cartilage.
3. Peripheral primitive Neuroectodermal tumour (pPNET) found in Nerves[4].
4. Asmin tumour

Diaphslic evaluation of these patient are done through physical examination, x-ray chest and CT - thorax. Lactate dehydrogenase as used as prognostic indicator. Increase in LDH before treatment indicates poor prognosis[1,5]
Treatment consist of :-
(i) Surgery
(ii) Chemotherapy – Using drugs to kill cancer cells.
(iii) RadioTherapy .
MRI PET- SCAN bone scan bone marrow aspiration and biopsy can also be carried out for diagnosis[2 ,5]

Cause:

The majority of Ewing's Sarcoma results from a chromosome rearrangement between chromosome 11 and 22 [2]. The rearrangement changes the position and function of genes causing a fussion of genes referred to as a fusion transcript[1].

Prognosis:

About 70% of children with Ewing's Sarcoma are cured. Teens aged 15 to 19 years have a lower survival rate of about 55%[2]

Conclusion:-

Ewing's Sarcoma is a very rare type of cancerous tumor which grows in soft tissue around bones such as cartilage or nervous. It usually affects people from the ages 10- 20 years and has a high rate of being cured. It usually affects pelvic bone (24.7%) followed by femur (16.4%) and ribs (12.9%). It can also affect skull scapula, humerus, calvical tibia and fibula and foot [2].

Delay in diagnosis of Ewing's Sarcoma is very common. Average duration of symptoms is 20 weeks.[5]

Disclaimer :-
I declare that I did not have any financial support or obligation, explicit or implied, to anyone.

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