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# A Case Report on Rhabdomyosarcoma in a 11-Year-Old Child

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**ABSTRACT**

Rhabdomyosarcoma is a kind of S.T.S. that starts in immature cells that eventually become muscle. It develops in striated muscle, a type of muscle. Striated muscles are the voluntary skeletal muscles, which are the muscles that people can control in their arms, legs, and other parts of the body. Children and young adults are the most common victims of Rhabdomyosarcoma. Based on the appearance of the cells under a microscope, each rhabdomyosarcoma tumor is classed as either favorable or unfavorable. The terms "favorable" and "unfavorable" refer to how cancer cells appear. The more cancer cells resemble normal cells, the more "favorable" they are and the more likely they are to respond to treatment.

A 11-year-old child admitted toRural hospital with the chief complaints of lumps under the skin (often in the neck, under the arm, or in the groin), bone pain, constant cough, weakness, and weight loss, discharge of nasal, facials welling, facial palsy, pain on the face pain full swelling occur on the mouth.Medical treatment started with chemotherapeutic drugs such as bleomycin,inj mitomycin, and inj. Methotrexate is given, and radiation therapy as soon as possible is given for better condition; all the treatments are given under the supervision of an expert physician result was good. Nursing Management-Fluid replenishment (DNS and R.L.), maintained intake and the result charts and monitored all vital signs hourly. Conclusion- after all investigation and effective care are provided under the supervision of experts and staff nurses, the patient's health has been improved, and the results were good.

**Keywords:** Rhabdomyosarcoma, Myoblast, Chemotherapy, Curative.

**Introduction:**

Rhabdomyosarcoma (R.M.S.) is a skeletal muscle phenotypic malignant soft tissue sarcoma that develops from a primitive mesenchymal cell in children. The majority of instances are found in youngsters under the age of six. The cause and risk factors are mostly unclear. Most rhabdomyosarcoma occurrences are sporadic, but the Disease is linked to familial disorders. Embryonal Rhabdomyosarcoma (60 percent), alveolar Rhabdomyosarcoma (20 percent), pleomorphic Rhabdomyosarcoma (10 percent), and spindle/sclerosing Rhabdomyosarcoma (10 percent) (approximately 10 percent). Rhabdomyosarcoma patients' survival has increased in recent years, owing mainly to multidisciplinary disease care approaches. This activity emphasizes the interprofessional team's presentation, diagnosis, and involvement in rhabdomyosarcoma management. Rhabdomyosarcoma (R.M.S.) is a skeletal muscle phenotypic malignant soft tissue sarcoma that develops from a primitive mesenchymal cell in children. The majority of instances are found in youngsters under the age of six. The cause and risk factors are mostly unclear. Most rhabdomyosarcoma occurrences are sporadic, but the Disease is linked to familial disorders.

Embryonal Rhabdomyosarcoma (60 percent), alveolar Rhabdomyosarcoma (20 percent), pleomorphic Rhabdomyosarcoma (10 percent), and spindle/sclerosing Rhabdomyosarcoma (10 percent) (approximately 10 percent). Because of multi-professional disease treatment techniques, patients with Rhabdomyosarcoma have had better outcomes, notably in the recent decade.[1] Although the origin and specific risk factors for Rhabdomyosarcoma

are unknown, in utero radiation exposure, faster in utero growth, low socioeconomic position, and parents who use recreational drugs during pregnancy raise the chance of Rhabdomyosarcoma. R.M.S. has been linked to some family diseases, including neurofibromatosis, Noonan syndrome, Li-Fraumeni syndrome, and Beckwith-Wiedemann syndrome.[2] Risk stratification, which comprises histologic categorization, presurgical stage, and postsurgical clinical group, is used to treat Rhabdomyosarcoma. Surgery, chemotherapy, and radiotherapy are all options for treatment. Although the benefits and drawbacks of radical surgery and radiotherapy should be evaluated, local treatment is critical in treating Rhabdomyosarcoma. In pediatric Rhabdomyosarcoma, chemotherapy and, in some situations, radiotherapy can cause partial differentiation.[3] Rhabdomyosarcoma (R.M.S.) is children's most common soft tissue head and neck sarcoma. Stringent analysis of survival data is imperative to optimize treatment.[4]

**Patient Information:**

The 11-year-old child has been referred to our Rural Hospital and admitted to the pediatric oncology ward with the chief complaint of lumps under the skin (often in the neck, under the arm, or in the groin), bone pain, constant cough, weakness, and weight loss, discharge of nasal, facial swelling, facial palsy, pain on the face pain complete swelling occur on the mouth. Systolic and diastolic pressure was 130/90.

**Medical and family psychosocial history:**

No medical records were available in this case, surgical past, and the nuclear family. He was mentally sound and well-informed. He maintained intense contact with his family, doctors, nurses, and other patients. The patient is from a household of middle-income and his relatives. Goodin's health doesn't have a Complete communicable Disease, any complaint of sexually transmitted disease, and non-communicable disease. The patient maintains a co-relationship with the doctor and family members.

**Clinical findings:**

The 11-year-old child has been referred to our Tertiary Care Hospital and admitted to the pediatric oncology ward with the chief complaint of lumps under the skin (often in the neck, under the arm, or in the groin), bone pain, constant cough, weakness, and weight loss, discharge of nasal, facials welling, facial palsy, pain on the face pain full swelling occur on the mouth. The findings of the laboratory test were as follows:Hemoglobin (Hb) 11.6gm/dl total leukocyte count (12.1-15.1 gm/dl),10200 cell/m3 (5000-11,000 cell/m3), creatinine 0.6 mg/dl (0.6-1.4mg/dl), urea level 13 mg/dl (8-40 mg/dl), sodium 142 ,(135- 145 )potassium 4.2 mEq/l), computerized tomography is done.

**Diagnostic Evaluation:**

The findings of the laboratory test were as follows: Hemoglobin (Hb) 11.6gm/dl. Total leukocyte count (12.1-15.1 gm/dl), 10200 cell/m3 (5000-11,000 cell/m3), creatinine 0.6 mg/dl (0.6-1.4mg/dl), urea level 13 mg/dl (8-40 mg/dl), sodium 142 ,(135- 145 ) potassium 4.2mEq/l)

**Therapeutic Intervention:**

Present case medical treatment started with chemotherapeutic drugs such as inj. Bleomycin,inj. Mitomycin, and inj. methotrexate is given then radiation therapy as soon as possible are provided for better condition all the treatment are offered under the supervision of expert physician result was good. If the tumor can be removed without causing severe damage or disfigurement, all children and adults with R.M.S. will be treated with surgery to remove it. The tumor may be treated with chemotherapy and radiation therapy if this isn't possible. Surgery can be performed now if the tumor has shrunk sufficiently.After admission to the chemo ward comfortable bed was provided to the patient; cardiac monitoring started, and vital signs were checked. Blood pressure was measured two-hourly checked, and strict intake and output were maintained. Doctors used careful management to treat this problem within bleomycin, inj. mitomycin, Budcort, and dacarbazine. But the surgeon's sole option for dealing with this issue was to perform a surgery. Now surgeon has planned for surgery for Rhabdomyosarcoma.

**Nursing Management:**

On duty, the pediatric oncology ward nurses kept a close eye on the patient. Intravenous fluid was given according to the calculations. Intake and output were maintained for 2 hours. Vital signs were recorded strictly. Now the surgeon has tried temporarily managing this case with medicines and chemotherapy drugs. His treatment response was mostly positive, and he was transferred to the general ward after achieving stability.

**Discussion:**

Children aged 1–4 years had the highest prevalence of R.M.S., followed by 10–14-year-old children, and finally children adolescent or adolescent and adol. Our one-ago child was in the group of "dangerous tumors grow swiftly and aggressively. Eventually, they grow to huge proportions.[5-6] They are frequently painless, with a high risk of recurrence and widespread metastasis via the hematogenic and lymphatic systems The absence of lymphadenopathy and the existence of Pleomorphism, a type of alveolar pattern, and the cells' interconnectednessruled out lymphoma. The most important differential diagnosis in this case is Neuroblastoma, a tiny cell tumor with A diffuse pattern of small round cells and rosettes/pseudo rosettes with pale eosinophilic material alveolar way. Variety of R.M.S., In

neuroblastoma, typically high urine aids. Another diagnosis of lymphatic or lymphatic-venous malformation is the most frequent vascular malformation affecting the pediatric airway. It is also a component of the differential diagnosis R.M.S. has a poor prognosis compared to various malignancies of the oral soft tissue tumors; it depends on the hospital stage and anatomically location tumor.[7-12] Unfortunately, in this case, the patient's guardians' lack of cooperation and the failure to institute chemotherapy and radiation as adjuvant treatments at the time of admission may be denied. As a result, the tumour'squick advancement exacerbated the severity of the disease that led to the child's death. As a result, treatment is taken holistically. Because R.M.S. tends to spread to the bone marrow, it necessitates a surgical procedure to remove the tumor. Following that, multiagent chemotherapy with or without radiotherapy is administered. The staging technique should include a bone marrow aspiration. Finally, any swelling in children should be thoroughly examined, and treatment results should be closely monitored. Embryonal rhabdomyosarcomas of the uterine cervix are rare tumors with unique clinical and pathological findings and associations that distinguish them from embryonal rhabdomyosarcomas occurring in other sites. These tumors have been mainly discussed in the context of individual case studies.[13-18]

**Conclusion:**

There are so many risk factors that will be responsible for Rhabdomyosarcoma. The community population should be aware of the risk factors for Rhabdomyosarcoma. To prevent the severity of a disease, knowledge is one of the essential keys responsible for the prevention of diseases. Through the education, women will also be taking health care of their family members and themselves. The information they need to achieve the maximum potential for daily living against Rhabdomyosarcoma. Rhabdomyosarcoma c be managed appropriately if detected as early as, so many complications can be prevented. Suppose it is diagnosed and treated immediately. During the patient's first visit, it was challenging to detect the diagnosis of the final Disease. When the patient comes to the hospital for a second visit patient shows the appropriate symptoms to diagnose the last Disease. Rhabdomyosarcoma is considered, and proper radiological and laboratory blood and cardiac investigations should be done early diagnosis of the disease and its medical treatment so patients can recover earlier in the community.

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