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Case Report: Excellent long survival of a female patient with Osteosarcoma still alive after 21 years' management in Babil Oncology Center (1998-2019)

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***ABSTRACT**--30 years old unmarried girl with above knee amputation of right lower limbs since 1998 as radical treatment for Osteosarcoma of upper tibia with no systemic or local recurrence after oncological treatment till now.*

***Keywords**-- Excellent long survival of a female patient with Osteosarcoma still alive after 21 years' management in Babil Oncology Center*

I. HISTORY OF PRESENT ILLNESS

The condition start before 21 years when she felt pain & swelling in her right foot, on examination we suspect bone tumor as by x ray there was periosteal reaction ,in the 2nd metatarsal bone with destruction of the cortex, operation was done (Excisional biopsy) to excise 2nd metatarsal bone as a whole with tumor sent for Histopathology which revel Osteosarcoma , so we decided to do amputation of the right foot (above ankle) but the relative refused to do amputation.

After 9 months she came to Dr.Wahab Al-Tahan with another lesion in same side of the limb but in the upper third of right tibia with lytic lesion & destruction of the cortex so bone metastases suspected & another biopsy done & same result of Osteosarcoma proved, so we decided it do above knee amputation after complete survey if there was another metastases which was negative, so amputation done & sent for histopathology & also the result was **Osteosarcoma** after that the surgeon sent her to Dr. Sharif Fadhil for chemotherapy & she received 6 course of chemotherapy (ADM 50mg/m^2& cisplatin 50mg/m^2 & every 3 weeks) followed closely by him for recurrence but till now there are no sign of metastases locally or distally.

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II. BACKGROUND

Osteosarcoma is the commonist malignant tumor of bone [1, 2]. It is till now not fully understood desoite being a very old disease . osteosacrmoma believed to be formed from the primitive mesenchymal cells that form the bone , and it is characterized histologically by the formation of malignant osteoid. The presence of of other cell types might also be found , as these kinds of cells may also form from pleuropotential mesenchymal cells. however , the diagnosis of osteosarcoma is confirmed by the observation of any area of malignant bone.

Oseosarcome is considered a deadly form od muscloskeletal tumors and the commonest cause of death is from lung metastasis . [3, 4] . the majority of osteosacrmoa appear as a single lesion withim the rapidly growing parts of the long bones in pediatric age group. The usually affected parts if the distal femur, the proximal tibia, and the proximal humerus, but theoratically it can affect any bone.

III. PATHOPHYSIOLOGY

Osteosacrome is a tumor that affect bones which can affect any bone m commonly affect the ends of long bones near metaphyseal growth plates . the most popular sites are as follows:

- Distal Femur
- Proximal Tibia
- Proximal Humerus
- Skull and jaw
- Pelvis

There are different types of osteosarcoma , such as conventional types (osteoblastic, chondroblastic, and fibroblastic), telangiectatic ,multifocal, parosteal, and periosteal.

In this paper we only discuss conventional addresses conventional Osteosarcoma (which is usually called simply as Osteosarcoma).

The etiology of tumors is still unknown [3,4,5,6,7] but probable causes involve : genetically inherited mutations , exposure to radiation & trauma , but in the majority of cases there is no identifiable cause.

Malignant tumors that arise in the bones are called primary bone tumors. While tumors that arise firstly in another area of the body (for example the breast or colon) are not called bone tumors.

There is many types tumors have the ability to metastasize and affect the bone as a secondary area including : Breast, Kidney ,Lung ,Prostate, Thyroid , usually these types affect old patients.

IV. EPIDEMIOLOGY

In USA , 400 new cases per year was reported , with an overall 5 years survival rate was 63% Cases reported in blacks is more than in whites. It is slightly more common in males than females . while it is very rare in pediatric age group. However, case incidence increases with age with a significant increase in adolescent in relation with growth spurt in adolescent .

V. PROGNOSIS

The prognosis of osteosarcoma depends on many factors including staging , tumor makers , and response to chemotherapy .

According to SEER data for 1973-2004, the overall relative 5-year survival rates were as follows [8] :

- Age < 25 years - 61.6%
- Age 25-59 years - 58.7%
- Age 60-85+ years - 24.2%
- Pulmonary metastases had reported more commonly with patients diagnosed with an elevated Alkaline Phosphatase (ALP) , in addition , an elevated LDH is associated with poor prognosis.

VI. COMPARATIVE STUDIES

1-Survival in high-grade osteosarcoma: improvement over 21 years at a single institution*.(10)*

12 years Follow up of patients revieled that aproxiamtely half (50%) are alive, with about 80% of them are free from disease.

Statstics showed that Survival has improved nowadays , despite of there is no new medications for osteosarcoma. Aggressive management are advised even for poor prognosis patients.

2-Trends and variability in survival among patients with osteosarcoma: a 7-year update *(11)*

a score was developed to predict the prognosis which involved : age < 10 years , being a male, diameter of the rumor < 15 cm , osteoblastic or chondroblastic type , symptoms 2 months or less , and femur or humerus affected. Patient with 5 or 6 of these factors supposed to have a poor prognosis , while 2 or less had a good prognosis.

3-Survival, prognosis, and therapeutic response in osteogenic sarcoma. The Memorial Hospital experience (12)

Survival rate was about three forth and approximately 70% at 5 and 10 years, respectively, with disease-free survival about 70% and 69%.

The local recurrence risk in femur tumors is as 5 times higher as tumors of other places. however , the risk is about 3 times much higher in proximal rather than in distal part of the femur.

Incomplete response to chemotherapy may lead to five times more risk of failure than whom with complete response to chemotherapy . Even in those patients with minimal or no necrosis in the primary tumor, ultimately 62% and 54% were disease-free at 5 and 10 years, respectively.

4-Survival Data for 648 Patients with Osteosarcoma Treated at One Institution*(13)*

Survival is signifcatly influenced by age. The survival rate of patients who are 20 years or less was 78% , while the rate of whom 20-40 years was 70%.

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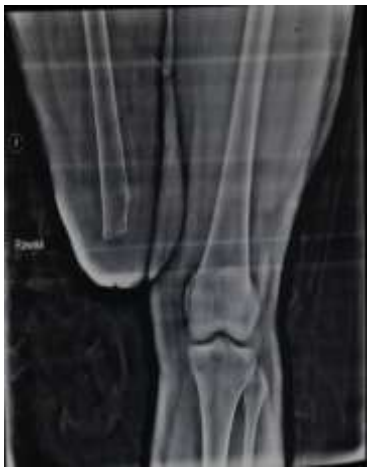
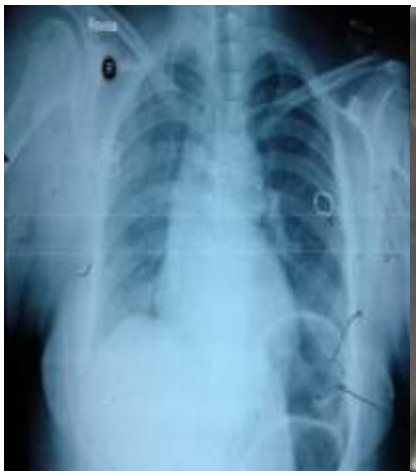
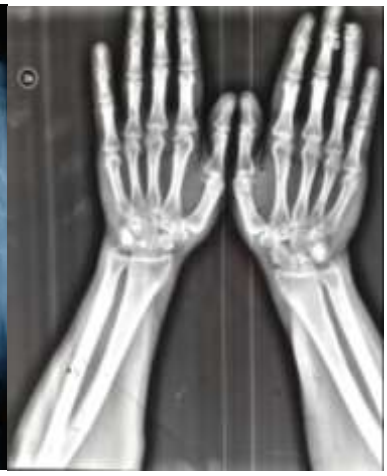
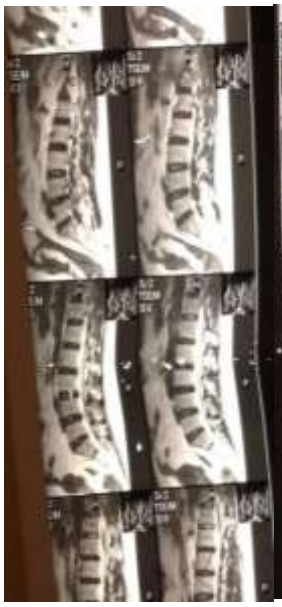
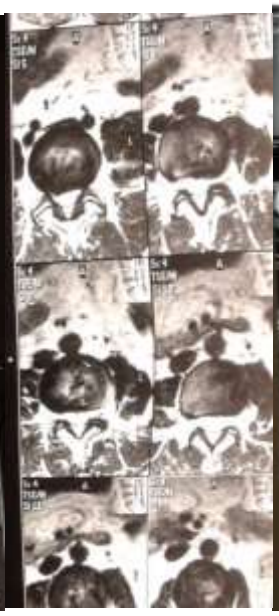
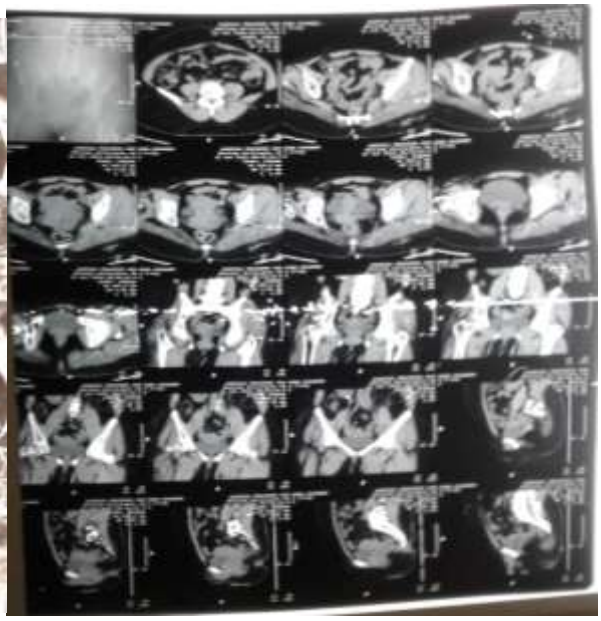
VII. CONCLUSION

Osteosarcoma case was registered for the patient (Roa Muhammad) 9 years old in 1998 & She is alive for 21 years became a 30 -years-old in 2019 in Babil province from 18686 case of a malignant tumor During the period (1990 -2018) 10052 (53.79%): women 8634 (46.20%) males,With ratio 1.15: 1 for women: men

After a referral from Respected brother: Dr. Abdul Wahab Al-Tahan , As he was found positive malignant tumor bone (Osteosarcoma) by excisional Biopsy of 2nd metatarsal bone of Rt foot ,then he did amputation above knee after 9 months as the tumor recurrence metastasized in ipsilateral upper tibia as her relative refused amputation from the start. then treated by 6 courses chemothearpy (Cisplatin + Adriamycin) every 3 weeks and she responded well to the treatment of the tumor did not spread to other organs of the body through regular check-up since 1998 until now (2019).



مختبر القمة

للتحليلات المرضية المتقدمة وامراض الدم والهرمونات

الدكتورة : نجلاء بدر العوادي

شهادة البورد : الدكتوراه في امراض الدم

استاذ مساعد / كلية الطب / جامعة بابل

عضو جمعية اطباء الدم العراقية

M.B.Ch.B / F.I.B.M.S (Hematology)

الحلة – المحافظة القديمة – مقابل شط الحلة ومقابل الجسر الحديدي

حضرة الدكتور : شريف فاضل عبود الخزعلي المحترم

اسم المريض : رواء محمد التاريخ: 12/02/02

Bone marrow biopsy report

1.5 cm core of cancelous bone all taken
Section shows cellular marrow trabeculae with ***prominent megakaryocytes*** *.*
No malignancy, no granuloma and no fibrosis are seen.

Conclusion:
Normal reactive marrow .

Brilliance 16

Babylone Health Directorate .
Merjan teaching Hospital
CT unit.

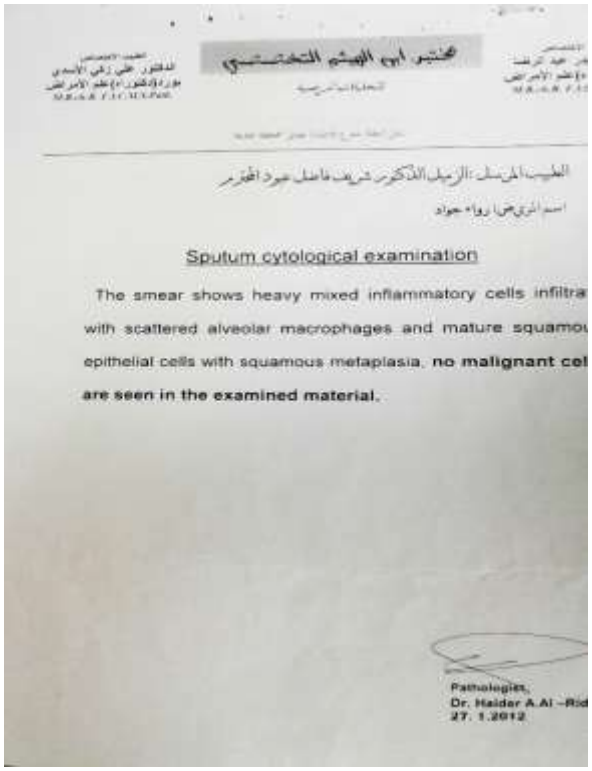
REWAA MOHAMED.

Brain CT (NE)

Normal density of grey & white matters of both cerebral & cerebellar hemispheres, No SOL.
- Normal density of periventricular white matters.
- Normal ventricular system, No dilatation, No midline shift.
- Normal sella& both orbital cavities, No SOL.
- Normal both CPA & IAC's, No SOL.
- No IVH.
-No ICH.
-Normal skull & scalp.

Dr. HANAN HAMID

REWAA MOHAMED



مختبر ابن الهيثم التخصصي

الطبيب المرسل: الزميل الدكتور شريف فاضل عبود المحترم

اسم المريض: رواء جواد

Sputum cytological examination

The smear shows heavy mixed inflammatory cells infiltra
with scattered alveolar macrophages and mature squamou
epithelial cells with squamous metaplasia, **no malignant cel
are seen in the examined material.**

Pathologist,
Dr. Haidar A.Al –Rid
27. 1.2012

مختبر المدير التخصصي

للفحص النسيجي المرضي والتحليلات المرضية العامة والمتقدمة والهرمونات

الدكتورة هديل عبدالاله كريل

MB.Ch.B - F. I. M. C. S. Path.

الزميل الدكتور: شريف فاضل المحترم

Date: 31/10/2012 اسم المريض: رواء محمد

Cytological examination report

Right submandibular lymph node FNA:

Moderately cellular smear composed from mixture of lymphocytes , foamy histiocytes with few benign looking mesenchymal cells.
Findings are consistent with the diagnosis of reactive lymphadenitis.
No evidence of malignant cells in the examined material.

Follow up is recommended.

With regards

شريف فاضل عبود الخزعلي

Dr. Hadeel A. Kerbel

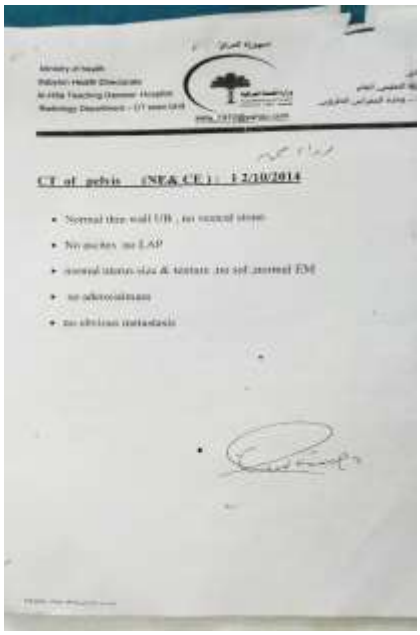
دائرة صحة بابل
م الجهة التعليمي العام
شعبة الأشعة (الرنين المغناطيسي

الأسم:

MRI OF LT. leg : 9/12/2013

Seq:- multi-planar T1, T2 , STIR & Gd

Best Regards



CT of pelvis (NE& CE) : 12/10/2014

- Normal thin wall UB , no vesical stone
- No ascites no LAP
- normal uterus size & texture ,no suf ,normal EM
- no adenomiomas
- no obvious metastasis

Date: 2017-02-27 — Time: 9:23 AM

NECK ULTRASOUND

مستشفى مرجان التعليمي
جمهورية العراق
وزارة الصحة
دائرة صحة بابل
مديرية مرجان التعليمية

التاريخ : ٢٠١٦/٠٩/٢٩

اسم الطبيب المرسل :
اسم المريض : رواء محمد

Doppler study of right upper limb

Normal caliber and velocities of the following arteries
Subclavian artery
Axillary artery
Brachial artery
Radial artery
Ulnar artery

The following veins are normal & compressible ,no thrombosis
Subclavian vein
Axillary vein
Basilica vein
Brachial vein
Radial vein
Ulnar vein

مستشفى مرجان التعليمي
جمهورية العراق
وزارة الصحة
دائرة صحة بابل
مديرية مرجان التعليمية

التاريخ : ٢٠١٦/٠٤/٢٨

اسم المريض

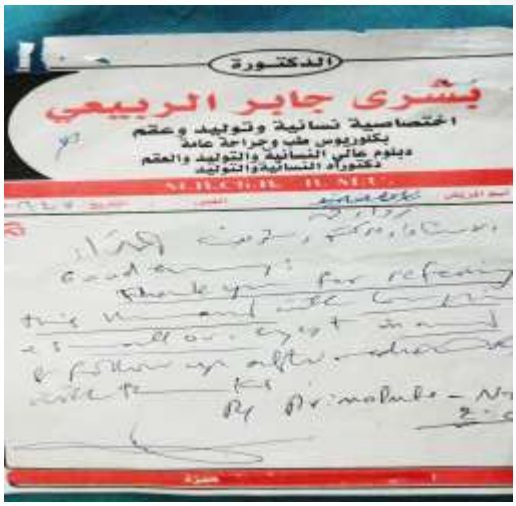
Neck U/S

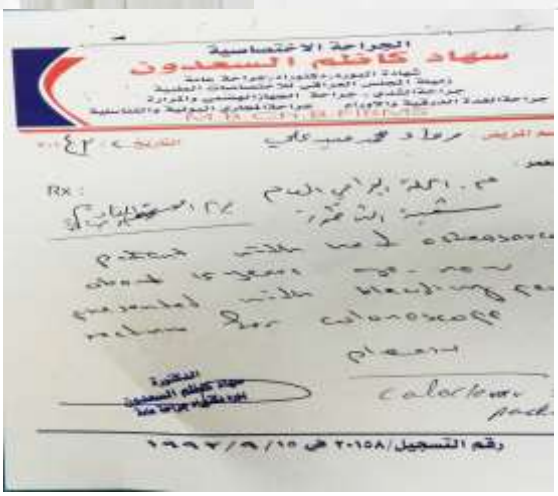
Both Thyroid lobes are normal in size and texture , no SOL.
Normal vascularity on color Doppler study .
Multiple sub mandibular LN enlarged with intact hilum large one 23mm in right side

Normal larynx , vessels , salivary glands, muscles, great vessels ...etc

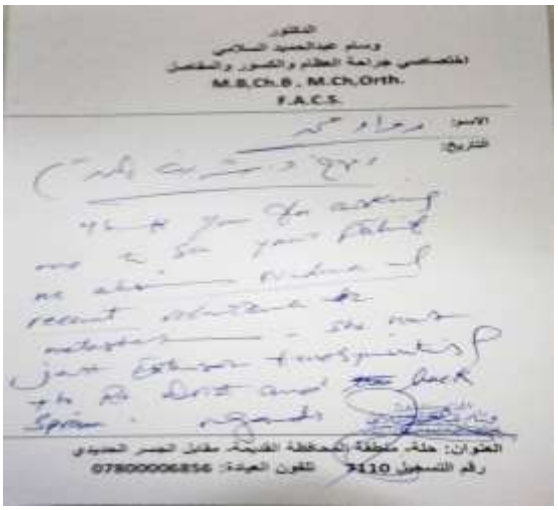

Clinical Laboratory
Haematology
ESR 40
Blood Sugar 105 mg/dl


ESR = 25 mm/1st hour


الدكتورة
بشرى جابر الربيعي
اختصاصية نسائية وتوليد وعقم
بكلوريوس طب وجراحة عامة
دبلوم عالي النسائية والتوليد والعقم
دكتوراه النسائية والتوليد


الجراحة الاجتماعية
سهاد كاظم السعدون
Rx:


العنوان: حلة منطقة المحافظة القديمة مقابل الجسر الحديدي
رقم التسجيل 7110 تلفون العيادة: 07800006856


الدكتور
وسام عبدالحميد السلامي
اختصاصي جراحة العظام والكسور والمفاصل
M.B.Ch.B , M.Ch.Orth.
F.A.C.S.
العنوان: حلة منطقة المحافظة القديمة مقابل الجسر الحديدي
رقم التسجيل 7110 تلفون العيادة: 07800006856

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