



## > 2019

# **CASE PRESENTATION**

Our patiant was a ten-year-old girl who had a right

periorbital swelling

and

fever

for about one week before referral,

# IN INFECTIOUS WARD

who was initially treated with an antibiotic(VAN+CEF) for the diagnosis of pre-septal cellulitis, but gradually fever and left periorbital swelling were added to symptoms.





There was a history of systemic lupus erythematous (SLE) in the patient's grandmother and aunt, and grandmother died from a pulmonary complication.

- Sonographic evaluation showed extensive soft tissue edema in the face and upper neck particularly in superficial subcutaneous tissue
- The study of MIBG scintigraphy was negative.



نام بیما ر : خانم باران قدیری

### SONOGRAPHY OF THE NECK, THYROID AND SALIVARY GLANDS:

Extensive soft tissue edema in the face and upper neck particularly in the superficial subcutaneous tissue are seen.

No sign of mass lesion or any obvious pathology is detected in the sites of edema. No significant adenopathy is seen at anterior and posterior triangles and carotid sheaths and central neck.

Both thyroid lobes have normal size and homogenous echo pattern.

Right lobe measured 29×12×8mm and left lobe 29×12×10mm.

Isthmyc region has normal thickness (1mm) and echo, too.

Salivary glands and particularly parotids and submandibular are symmetric and normal. No mass or any obvious pathology is defined.

Other cervical structures are symmetric and normal.

Both common carotid arteries, and main branches as well as jugular veins are roughly normal bilaterally.

Concerning the clinical signs and extension of the edema, unusual collusion vascular diseases such as dermatomyositis or polymyositis might be considered.

MRI images showed inflammatory signal changes in subcutaneous area of bilateral cheek and submandibular region in favor of cellulitis without evidence of collection or lymphadenitis.



الم بیمار : باران قدیری (کودک)

با سلام و احترام همکار گرامی جناب آقای دکتر سیامک بسیم فر

#### Buccal MRI (without contrast)

Dear colleague :

سن : ۱۰ سال

**Technique:** Dedicated study is obtained with multiplanar and in different sequences with GE 1.5 tesla machine .

- Inflammatory signal change is seen in subcutaneous areas of bilateral cheek and submandibular region. Cellulitis is first line diagnosis.
- Collection and abscess formation is not presented.
- Maxillary and mandibular bones are normal.
- Submandibular glands and parotid glands are seen as usual.

6-57

In laboratory studies only mild Leukopenia (3800) and lymphopenia occurred and other inflammatory markers and markers such as ESR and CRP were mildly elevated. Bone marrow examinations were also performed for the patient with no evidence of abnormal cell involvement

## BMA AND FLOW

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# Finally, the patient underwent a biopsy



شماره پدیسرش : ۲۲۷۲-۳۰ تاریخ پذیرش : ۱۳۹۸/۰۳/۰۲ تاریخ جوابدهی : ۱۳۹۸/۰۳/۲۱ پزشک معالج : جناب آقای دکتر سیدمحمدکاظم نام مراجعه کننده : خانم باران قدیری سن : ۱۰ سال شماره باتولوژی : I201-8-98 1:2

#### Specimen

Left buccal soft tissue mass

#### Clinical data

FUO, cervical lymphadenopathy, perioccular swelling, not responsible to antibiotic therapy R/O lymphoma

#### Macroscopic

Specimen received in formalin & consists of an ovoid encapsulated elastic mass measuring 18x1.4x1.1cm. The cut surfaces are homogenous tan yellow solid and nodular.Block sum T.S in blocks No:1-3

#### Microscopic

Serial step sectioning show uniform mature adipocytes with intervening thin fibrous bands resulting nodular pattern infiltrated by polymorphous inflammatory infiltrate including lymphoplasmacells and neutrophils admixed with nuclear dusts. No malignancy.

#### Diagnosis

Left buccal soft tissue mass , excision:

- Fibrolipoma versus lipomatosis , see the comment please.

- No evidence of malignancy in this specimen.

Comment: According to mixed inflammatory cells infiltrate, infectious diseases should be ruled out.

Pathologists:



The general illness and the persistence of fever and the lack of response to broad-spectrum antibiotics and the negative result of cultures and infectious studies, Takht-E-Tavoos pathology laboratory, Tehran Sections prepared from all the blocks for H-E staining. The blocks were returned to the patient.

### MICROSCOPIC DESCRIPTION:

Sections show portions of adipose tissue with patchy areas of necrosis and infiltration by individual and aggreg of atypical lymphoid cells with small hyperchromatic nuclei showing irregular nuclear contours and scanty cytoplasm. There is peripheral rimming of adipocytes by some atypical lymphoid cells. There is also marked infiltration by foamy macrophages.

On IHC staining, there is marked infiltration of adipose tissue by CD3+, CD7+, CD8+, Granzyme B+, lymphoid with typical peripheral rimming of adipocytes.

# SECOND LOOK DIAGNOSIS: LEFT BUCCAL MASS, SENT FOR SECOND OPINION AND IHC STAINING: • MORPHOLOGIC STUDY AND IHC STAINING ARE IN KEEPING WITH SUBCUTANEOUS PANNICULITIS LIKE T-CELLYMPHOMA ICDO C76.0 M-9708/3

### NOTE:

Please also see the IHC report AP-98-2332

	Atieh Hospital Anatomical & Clinical Pathology Tehran:Shahrak-E-Gharb TEL:88086583-84	13 Jun 201
آراد	۷۲-۲۵-۵۰ ریخش ۱۲۹۸/۰۲/	شیماره پرونده: پزشك معالج: نور تاريخ مراجعه: ۷۰
سريايې	179/-7/7	تاريخ جواب: ۲
	"IMMUNOHISTOCH	IEMICAL STUDIES
CLINICAL INFORM SPECIMEN: Paraffin	ATION: Not provided block number AP-98-2331	
IHC MARKERS: Immunohistochemica	I staining was done using antibo	odies against the follo
Markers:	Description of reaction:	
1 - CD20: 2 - CD19: 3 - CD3: 4 - CD7: 5 - MPO: 6 - C-kit: 7 - CD34: 8 - TdT: 9 - CD4: 10 - CD8: 11 - Granzyme B :	Positive in few scattered sma Positive in few scattered sma Positive in many scattered si Positive in many scattered si Positive in few scattered ma Negative Negative Positive in few scattered lym Strongly positive in sheets an adipocytes	all lymphoid cells all lymphoid cells mall lymphoid cells w mall lymphoid cells w crophages phoid cells nd individual lymphoid

Please also see the pathology report AP-98-2331

M.Kadivar MD

M.Karimi MD

1 ( Ekosari MD

M.Shahidi MD

M.Sotoudeh MD

M.Tavangar MD

Biopsy showed lobules of fatty tissue with fibrinoid necrosis, small vessels were thrombosed and large vessels were surrounded by a number of lymphocytes, histiocytes and cell debris and in IHC slides showed the most lymphoid cells were positive for CD3,CD7,CD19,CD20 and strongly positive for CD8 and Granzyme B and negative for CD4,CD34,CD56,c-kit, TdT and MPO, suggesting

panniculitis and necrotizing leukocytoclastic vasculitis

آزمایگاه ماتولوژی جارسان توس

Toos Hospital Pathology Lab.

تاريخ گزارش : ۲۰۱۴ ۱۳۹۸/۱۳۹ شماره بذیرش : ۹۸۰۴۰۰۰۳۵ 11:00

نام پزشک : دکترباهوش شماره پاتولوژی :859-89-8

Clinical Data : Acute onset of fever, facial edema and erythema, with epidermal erosion, refractory to AB therapy.

Macroscopic : Received for consultation 3 blocks No 98-1201 with corresponding report from Takht Tavoos lab., dx as "Fibrolipoma vs lipomatosis,...". Moreover, there are 12 IHC slides from Atieh hosp., concluding the case as "..in keeping with subcutaneous panniculitis-like T-cell lymphoma". (No AP-98-2331).

Microscopic : This specimen shows lobules of fatty tissue with diffuse fibrinoid necrosis. The small vessels are thrombosed, the larger vessels are surrounded by a number of lymphocytes, histiocytes and cell debris. The histiocytes show phagocytosis. Necrotic fat cells are surrounded by lymphocytes, a few of them are slightly enlarged.

The IHC slides show that most lymphoid cells are positive for CD3, CD7, CD8 and Granzyme-B; a few CD19 and CD20+ B-cells are also present. CD4, CD34, CD56, c-kit, TdT and MPO are negative.

Diagnosis : Outside blocks No 98-1201 as left buccal mass:

#### - NECROTIZING LEUKOCYTOCLASTIC VASCULITIS AND LOBULAR PANNICULITIS

\* Rheumatologist consultation recommended.

A.Zare MD , AP/CP

Y.Nilipour, Neuromyopathologist

According to the positive family history of SLE in the family, sex of the child and lymphopenia, the study was performed for lupus and other rheumatologic diseases

In rheumatologic studies, the positive results included FANA with 1/320 titer and ACE 110 , but other autoantibodies and complement were normal.

	يە ن قديرى	شماره د ۱۹۹۵ می ۱۹۹۹ نام سمار د افرار سن میل مار د		1 July :	2019	-9-22- 19-247 -10-267
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Page 1 of 3

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Page 2 of 3

Lab Director



she was treated empirically with intravenous pulse methylprednisolone at a dose of 30mg / kg for three consecutive days, which was temporarily discontinued for several days, but again with recurrent fever and exacerbation of swelling and ulcerative lesions.



 according to all the studies and the approximate rejection of possible SLE , with the diagnosis of Subcutanous Like T cell lymphoma,

- At the start of chemotherapy, the patient developed
- High grade fever,
- pancytopenia,
- high serum ferritin,
- High triglycerides level,
- Low serum fibrinogen



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RBC	3.29
Hgb	4-P19-> 9.8
Hct	28.2
MCV	85.7
MCH	29.8
MCHC	34.8
RDW-CV	17.2
RDW-SD	51.3
PLT	66 -> 57 ·
PDW	11.9
MPV	10.2
P-LCR	26.4

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Neutrophils%	58 → 67.8	Poi
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Biochemistry	Specimien: Serum
Test	Result
BS	115 → 118
Urea	2.8-3 26
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ALT	117 - 215*
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Ferntin	670*
Comment:	
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Technician :	With the with with

and again bone marrow examinations was performed, Hemophagocytosis images were observed, and hemophagocytic syndrome (MAS)

16 July 2019	بيمه دامين اجتماعي	141
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Comment:		
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14 July 2019	
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Coagulation	
Test	Result
PT	$15_{19} \rightarrow 20.3$
Control	12.5
LN.R	1/28-> 1.64
APTT	33-> 41
Fibrinogen	68 *
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14 July 2019	
رستان بایعصر عج ایدهی آرمایشگاه رش ۲۲۵۵۵۲۲	المعادي المستعمل ا
Coagulation	
Test	Result
PT	$15_{19} \rightarrow 20.3$
Control	12.5
LN.R	1/28-> 1.64
APTT	33-> 41
Fibrinogen	68 *
Comment: *Recheck	Jos uSI Lio ula
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- Treatment with
- pulse-methylprednisolone
- IVIG

## the chemotherapy according to BFM–NHL protocol for the patient began.

and fortunately improved after two weeks of clinical and laboratory symptoms and continued chemotherapy regimen. Following treatment, fever was discontinued and facial swelling declined markedly and continued with outpatient chemotherapy was discharged. And in the fallow up, the patient was still afebrile and the swelling and ulcerative facial lesions improved completely.



# Panniculitis is the inflammation of the subcutaneous fat.

In patients with suspected panniculitis, a deep biopsy to include the subcutaneous fat is fundamental.

*Histopathologically, panniculitis can predominantly affect lobules or septa, with/without vascular involvement.* 

- the panniculitis can be classified into following main classes:
- A . predominantly septal panniculitis with or without vasculitis,
- B. predominantly lobular panniculitis with or without vasculitis and others

• A patchy lymphoplasmacytic infiltrate in the lobules of the subcutaneous fat along with lymphocytic nuclear dust is a clue for the histopathological diagnosis of LE panniculitis (LEP).

- Clinically, LEP and subcutaneous panniculitis-like T-cell lymphoma (SPTCL) are indistinguishable
- in SPTCL, the presence of atypical
   CD8-positive T-lymphocytes and the absence of septal fibrosis, B-cell follicles, and plasma cells clinch the diagnosis.

## SPTCL

SPTCL is an uncommon peripheral T-cell lymphoma accounting for less than 1 percent of all non-Hodgkin lymphoma subtypes. The exact incidence and variation in incidence with geography have not been well characterized. Patients present at a median age of 36 years (range 9 to 79 years) with approximately 20 percent of patients presenting under the age of 20. There appears to be a female predominance with a male:female ratio of 0.5. Up to 20 percent of patients have at presentation an associated autoimmune disease such as systemic lupus erythematosus, juvenile idiopathic arthritis, Sjögren's syndrome, or type 1 diabetes mellitus. Institut für Pathologie Universitätsklinikum Schleswig-Holi Direktor, Prof. Dr. med. C. Rocken Sektion Hämatopathologie und Lymphknotenregister Referenzzentrum für Lymphknotendiagnostik Leiter: Prof. Dr. med. W. Klapper OA: PD Dr. med. I. Oschiles

Tel. 0431 500 15718 - Fax 0431 500 15714



Institut für Pathologie - Postfach 7154 - 24171 Kiel

Farid Kosari MD AP-CP Associate Professor of Path. Atic Hospital Laboratory Shahrake Gharb Tehran, Iran

Eingangsdatum 16.07.2019 Ausgangsdatum 22.07.2019 wk/gr/

Name Baran Vomame Ghadiri Geb.-Datum 24.06.2008

Journal-Nr R/2019/084385

#### 

Ihre Auftragsnummer 1201 nachrichtlich Befundauskunft 0431 / 500 15718

#### Pathologisch-anatomischer Begutachtungsbericht

Dear Farid,

thank you for sending 3 paraffin blocks, macroscopic images and some immunohistochemical stainings as images by E-Mail (your no. 1201/1-3). This young girl suffers from a periorbital edema and skin rash over the face for a couple of months. Despite steroid therapy the findings are getting worse. All serological tests for Lupus have been negative.

The tissue biopsics show abundant necrosis in the fatty tissue. There is a lymphatic infiltration in the fatty tissue of medium sized cells which arrange closely around fatty cells. The cell proliferation is moderate (Ki-67). The cells stain positive for CD3, CD8, Beta-chain of the T-cell receptor (Beta-F1) bunt remain negative for CD30, CD79a and TdT. CD79a is labeling a few plasma cells in this lesion.

This is a difficult case. Generally, I think that a subcutaneous panniculitis-like T-cell lymphoma is the most likeliest diagnosis. The morphology and the proliferation of the T-cells as well as the abundant expression of CD8 argue against a Lupus panniculitis. Furthermore, the B-cell content in this biopsies is relatively low. However, we would expect more B-cells and a more polymorphic infiltrate in Lupus. Nevertheless, we can detect some plasma cells in the CD79a-staining. Therefore, I have tried to confirm by PCR-analysis. We have extracted DNA from Block 3 and performed the BIOMED-2- primers.

T-cell receptor beta chain gene:

A-Multiplex-PCR: Polyklonal B-Multiplex-PCR: Polyklonal C-Multiplex-PCR: Polyklonal

T-cell receptor gamma chain gene:

va primer mix: Monoclonal/polyclonal background (164 and 174 bp) vb primer mix: Irregular polyclonal

Antitut für Pathologie Sektion Hämatopathologie und Lymphknotenregister Mensemmen für Lymphknotendagnoslik Leiter: Prof. Dr. med. W. Klapper OA. PD Dr. med. L. Oschlies Tel ossi 500 15715 - Fax 0431 500 15714



Name Baran Vomame Ghadiri Geb.-Datum 24.06.2008

Journal-Nr. R/2019/084385

Ihre Auftragsnummer 1201

Pathologisch-anatomischer Begutachtungsbericht

I think that all findings are compatible with a <u>subcutaneous</u> panniculitis-like <u>T-cell lymphoma</u> (ICD-O: 9708/3).

With kind regards Sincerely Yours

14

Prof. Dr. W. Klapper

Tumorklassifikation ICD-10: C86.3 unbekannt G WHO: C44.0 M9708/3 pTX NX

