



Uncommon disease with rare features

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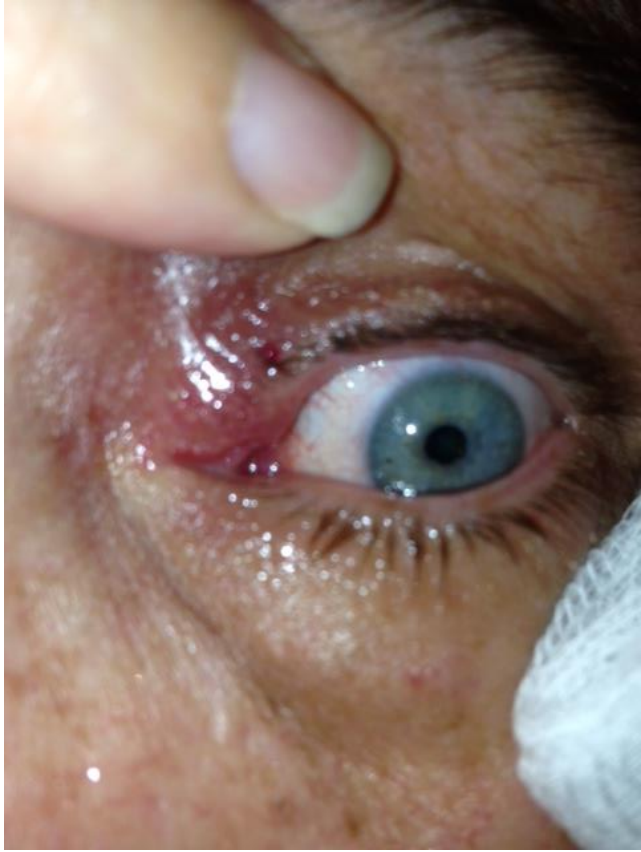
Department of medicine B

Sheba medical center at Tel Hashomer

Israel

- 53 years old woman
- Started seeking medical help for:
 - Left eyelid irritation
 - Oral cavity ulcers
 - Nasal discharge and epistaxis
- No systemic complains

- PMH:
 - Smoker
 - Graves disease treated with Mercaptizol (methimazole)
- Family medical history
 - Daughter with Hashimoto thyroiditis



- Physical examination: eyelid and oral cavity ulcer and inflammation, otherwise normal
- CXR – normal
- LAB:
 - ESR – 45 mm/h
 - HB 11mg%, MCV 75
- Renal function and urine analysis – normal

What Next?

- CT of head – mucosal congestion in ethmoidal and sphenoidal sinuses
- Negative ELISA for ANTI PROTEINASE 3 and ANTI MYELOPEROXIDASE
- Negative for ANA, dsDNA, RNP, SSA, ANTI MPO

DIFFERENTIAL DIAGNOSIS??

- Rheumatologic
 - GPA
 - EGPA
 - SLE
 - SARCOIDOSIS
 - BEHJET
- Infectious sinusitis
- Allergic
- Graves ophthalmopathy
- Side effect of the drugs

Two months later..

- The patient is admitted to the department of medicine because of
 - Fever
 - Weight loss
 - Weakness and fatigue
 - No night sweats

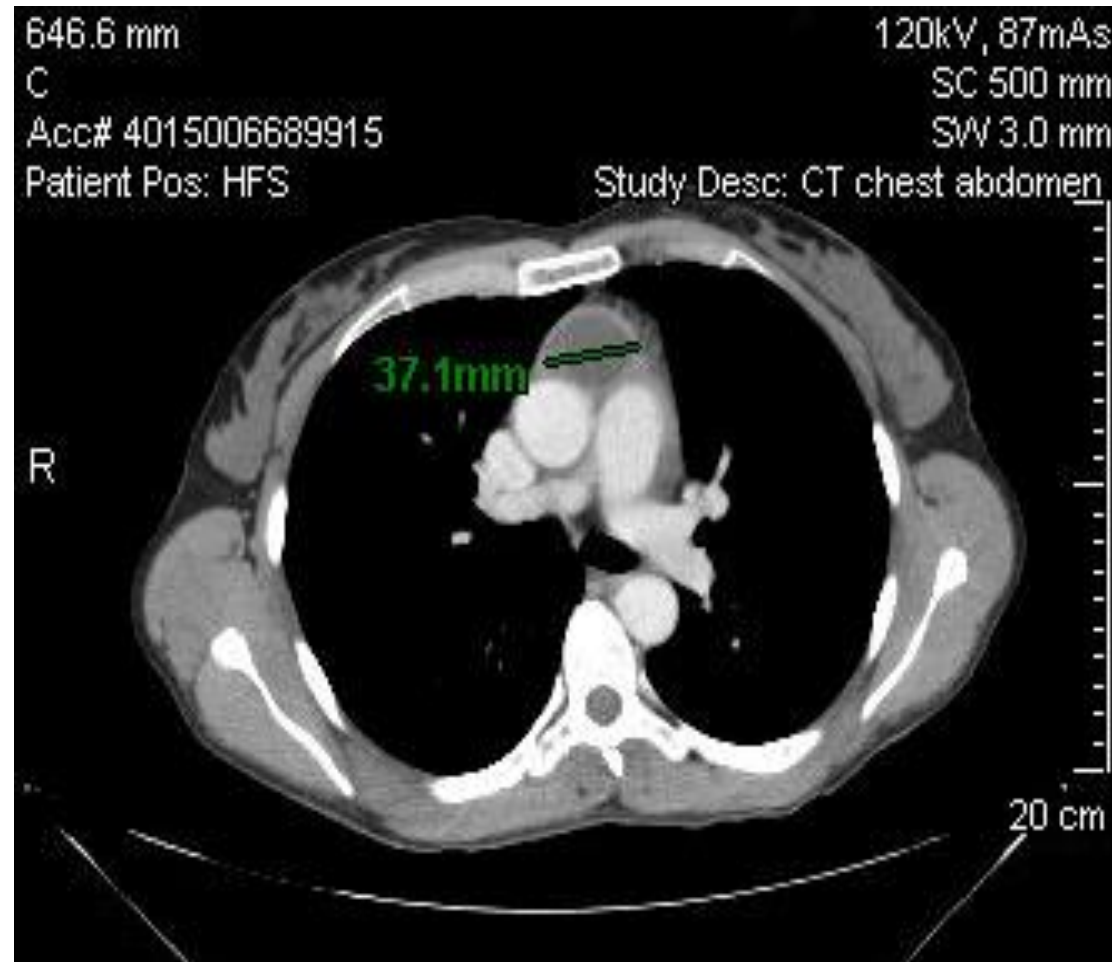
- Physical examination
 - Scleral and eyelid irritation
 - Sinuses percussion sensitivity
- Lab
 - CBC: WBC 10-12K, HB 9 N/N
 - ESR: 90 mm\h
 - CRP : 80
 - ALBUMIN 2.8
 - SMAC: NORMAL Electrolytes and Creatinine
 - URINANALYSIS AND SEDIMENT: NO CAST or PROT
 - AUTOIMMUNE SEROLOGY- **ANTI-PR3 POSITIVE**
- CXR: normal

- Scleral irritation, mucosal ulcers, sinusitis
- High inflammatory markers
- Positive Anti-PR3

- Normal CXR
- Normal kidney function



CT SCAN





Pos: 74.00 mm
SI: 38
Acc#: 4015006688915
Patient Pos: HFS
Study Desc: CT chest abdomen pelvis
Series Desc: MPR, Coronal
C
< 8038 - 38 MPR, Coronal >

Philips Brilliance 64
120kV, 137mAs
SC: 500.00 mm
159% Pixel
SW 2.00 mm
Viewer

R

10 cm

- The patient went through a thoracoscopy and biopsies taken from the mediastinal mass and from the pericardium (looks thickened)
- 15 cc drained

- Biopsy from the mediastinal mass: granulomatous inflammation
- Biopsy from the pericardium: lymphocytic infiltrate

ACR 1990 CRITERIA FOR GPA

- 1) Abnormal urinary sediment: RBC cast or >5 RBC per HPF
- 2) Abnormal CXR: nodules, cavitations, infiltrates
- 3) Oral ulcers or Nasal discharge
- 4) BIOPSY: Granuloma

Presence of 2 or more of these criteria associated with
88.2% specificity, 92% sensitivity

[Arthritis Rheum.](#) 1990 Aug;33(8):1101-7

Antineutrophil Cytoplasmic Antibody

- ANCA PR3 Positive in 70-90% pt's with active and generalized GPA; 60% in limited form; 10% MPO +
- Negative assays don't exclude- 40% ANCA negative
- ANCA in disease monitoring- CONTROVERSIAL!

POSITIVE SEROLOGY IS EXTREMELY USEFUL IN SUGGESTING THE DIAGNOSIS OF GPA IN THE COHERENT CLINICAL SETTINGS

[Lancet.](#) 2006 Jul 29;368(9533):404-18,

[Autoimmun Rev.](#) 2013 Feb;12(4):487-95

DRUG INDUCED AAV

- Rare complication of certain medications
- First described in 1993 By Dolman *et al.*
- Strongest link with antithyroid drugs:
PTU>>MERCAPTIZOL
- Usually ANCA MPO
- Systemic symptoms, fever, arthralgia-> renal failure
and alveolar hemorrhage

[Lancet](#).1993 Sep 11;342(8872):651-2,

[Case Rep Endocrinol](#). 2015;2015:530319

Table 1: Tissue Diagnostic Yield in ANCA-Associated Vasculitis³⁻⁵

Site of Biopsy	Diagnostic Yield
Sinus	30%
Nerve	55%
Nerve and muscle	80%
Lung	87%
Renal	96%

Miloslavsky E. 66-year-old man with visual loss, headache, hematuria, chronic sinusitis. *Rheumatologist*. 2012.

CLINICAL MANIFESTATIONS

- ENT 70-100%
- LUNG 50-90%
- RENAL 40-100%
- CONSTITUTIONAL SYMP. 50%
- SUGLOTIC/TRACHEAL STENOSIS 16%
- MUCOCUTANEOUS 10%
- UROGENITAL 5-10%
- PNS <10%
- CNS 6-13%
- OCCULAR 14-60%
- CARDIAC<10%
- G.I 5-11%
- JOINTS 30-40%



Mediastinal and hilar involvement

Rare! Sporadic case reports:

- [Clin Rheumatol.](#) 2000;19(6):495-8
- [J Rheumatol.](#) 2000 Oct;27(10):2511-2
- [J Intern Med.](#) 1990 Mar;227(3):215-7
- [Thorax.](#) 1991 Mar;46(3):219-20

George *et al*, MEDIASTINAL MASS AND HILAR ADENOPATHY

- 302 GPA patients
- Only six (2%) cases had a mediastinal or hilar involvement
- Three had mediastinal mass: **in addition** to LN or pulmonary lesions
- Three had enlarged LN **in addition** to pulmonary lesions

[Arthritis Rheum.](#) 1997 Nov;40(11):1992-7

Conclusion

- Clinically and histologically: GPA with mediastinal and cardiac involvement
- GPA can manifest in diversity of organs
- Negative ANTI-PR3 does not exclude the diagnosis, especially in limited disease

Thank You

