

PG or not PG that is the question



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Conflicts of interest

I have no financial interest or other relationship with any manufacturer of any commercial product or apparent conflict of interest related to the content of this presentation.

History

11 year old female presents with two painful non-healing ulcers on the left leg in 2008



PMH

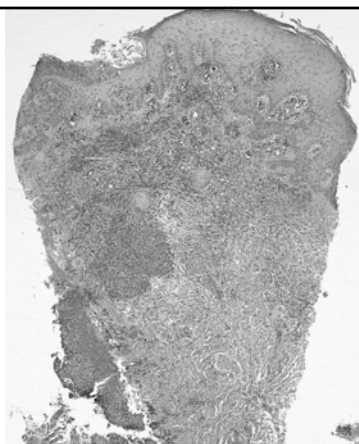
Sinus congestion since age 3 leading to sinus surgery at age 9



Labs

Culture grew *Pseudomonas*
IBD panel negative
RF slightly elevated
CBC and CMP normal
ANA negative
Lupus anticoagulant profile negative
C-ANCA immunofluorescence negative

Mixed inflammatory infiltrate with focal abscess and necrosis



Diagnosis and Treatment

Diagnosis

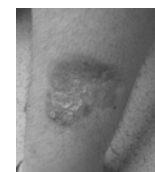
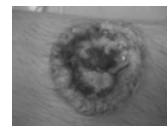
Pyoderma gangrenosum

Initial treatment June 2008

Cyclosporine
Prednisone 60 mg PO daily x 2 months then tapered
Ciprofloxacin x 1 month
Topical Gentamicin and Gentian Violet to ulcer bases

Added August 2009

Adalimumab 40 mg SC q other week
Protopic ointment



Course

Additional skin findings

Post-auricular purpuric tender papules and inflammatory facial acne

ENT

Nasal congestion and nasal deformity
Near complete obstruction of the nasal cavities

Chronic sinusitis with opacification of the maxillary sinuses

Subglottic ulcer with reactive subglottic and upper tracheal stenosis

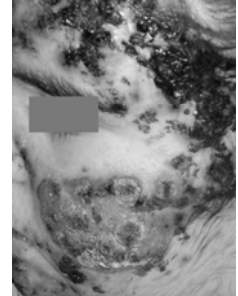


November 2010

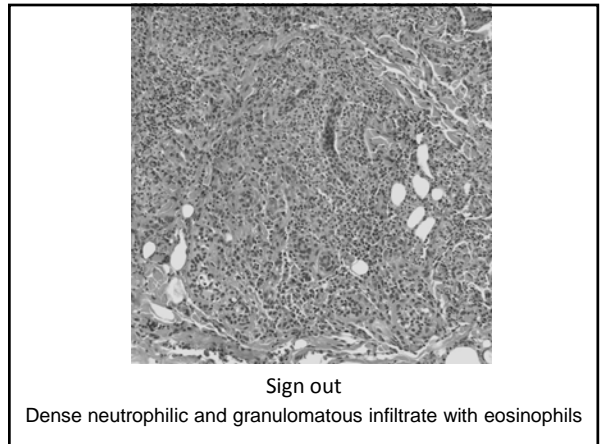
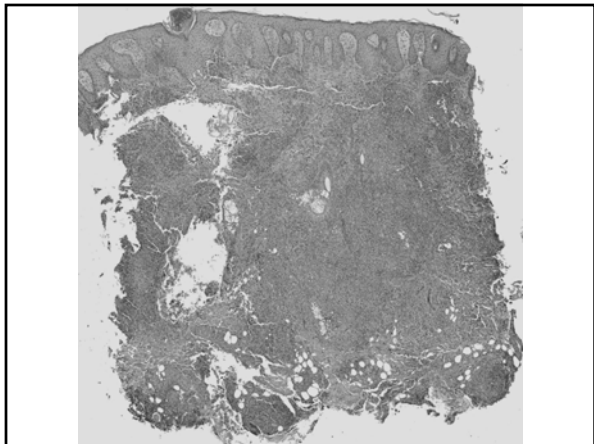
Nearly 3 years after initial presentation



January 2011



01/13/2011



Sign out


Dense neutrophilic and granulomatous infiltrate with eosinophils

Labs and Radiology

ANA – negative
 RF – slightly elevated
 C3, C4, CH50 – normal
 Lupus profile – unremarkable
 Renal function normal
 Chest CT normal
 Bacterial culture from facial lesion exudate – MRSA

Labs

ANCA IIF – unable to interpret
 Anti-MPO Antibody ELISA – nl
 PR3 ANCA ELISA - 320
 <19..... Negative
 20-25 AU/mL Equivocal
 26 or greater Positive



After a few days of IV antibiotics

PR3 ANCA

Serum IgG Proteinase 3 Antibodies - ELISA

Proteinase 3 (PR3) antigen is a 29kD serine protease that exists as a protein triplet in human neutrophils

Patients with WG develop autoantibodies to the PR3 antigen of myeloid lysosomes (A.K.A. PR3 ANCA)

PR3

“Wegener Autoantigen”


Detectable in nearly all patients with severe active WG

Approximately 20% of patients with limited WG may test negative for PR3 ANCA

Levels of PR3 ANCA often decline following successful treatment of patients with WG

Wegener’s Granulomatosis


Rare multisystem disease characterized by necrotizing granulomatous inflammation of the upper and lower respiratory tracts and kidneys and by necrotizing vasculitis



Likely an autoimmune inflammatory process, with C-ANCA directed at neutrophil proteinase 3 (PR3) involved in the pathophysiology of the disease

Wegener’s Granulomatosis

Skin involvement in 45%, presenting sign in 13%. Variable and non-specific. Most commonly palpable purpura, papules, SQ nodules, and ulcerations that may resemble PG



Without treatment, 82% mortality at 1 year. With treatment, 5-year survival rate 74 to 79%. Relapses occur in 50% of patients.

Limited Wegener's Granulomatosis

1. No red blood cell casts in the urine
2. Serum creatinine is ≤ 1.4 mg/dl
3. Pulmonary involvement must be circumscribed
4. No disease may exist within any other critical organ

Severe

Any patient whose disease is not classifiable as limited has severe disease, by definition

Limited Versus Severe Wegener's Granulomatosis. Arthritis and Rheumatism Vol. 48, No. 8, August 2003, pp 2299-230

Treatment

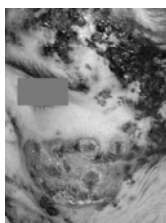
Treatment of choice - Cyclophosphamide

Continued for 6 to 12 months following remission combined with oral corticosteroids tapered after one month and discontinued within 6 to 9 months

After 3 to 6 months beyond induction of remission, AZA or MTX may be useful as adjuncts for transition to remission-maintenance therapy

Treatment

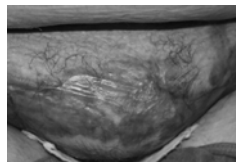
Discharged on daily PO and monthly IV Cyclophosphamide and PO Prednisone



February 2011



Update



May 2011

Pearls

- May take years to make a diagnosis
- Less than 15% of cases occur in children
- >50% of skin biopsies are non-specific
- C-ANCA can be negative initially
- PR3 ANCA detectable in nearly all patients with severe active WG, although 20% of patients with limited WG may test negative for PR3 ANCA
- Patients with limited disease nearly a decade younger at disease onset and more likely to be female
- Those with limited WG are more likely to have severe disease of the upper respiratory tract

Pearls

PG can be found in WG

Although PG rarely affects the face, this presentation is more common in children



References

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