Brown Syndrome

Description

- Abnormality of the superior oblique tendon
- Limitation of elevation in adduction

Clinical Characteristics

- Deficient elevation in adduction that improves in abduction
- Hypotropia
- Chin up head position and/or face turn away from affected eye
- Forced ductions show restriction to elevation in adduction that is worse with retropulsion*
- V pattern*
- Superior oblique function normal*
- (*)Help distinguish from Inferior Oblique Palsy

Etiologies

- Congenital tendon or trochlear abnormalities
- Acquired
- Trauma
- Inflammatory
    - Sinusitis
    - Systemic inflammatory diseases: Rheumatoid arthritis

Treatment Goals

- Abnormality of the superior oblique tendon
- Limitation of elevation in adduction

Treatment

- Treat underlying inflammatory disease if present
    - Steroid injection into trochlear area
    - Oral non-steroidal anti-inflammatory agents
- Congenital Brown syndrome may improve spontaneously

    - University of Iowa Patients
        - 83% Unchanged
        - 10% Improved
        - 3% Resoloved
        - 3% worsened
    - May improve years later (mean 11.7 years in Iowa data)
    - Observation may result in worse stereo vision outcomes than surgery.
- Patients may do best without surgery unless vision is threatened

Surgical Options

- Superior Oblique tenotomy/tenectomy
    - Possibility of superior oblique palsy
        - More likely if case is not severe
    - Combined with or followed by IO recession
    - “Chicken Suture”
- Superior Oblique tendon spacer
    - Silicone spacer
    - Suture spacer

strabismus