ENIGMA

SOMETHING THAT IS DIFFICULT TO UNDERSTAND OR EXPLAIN
MY GOLF SWING
FROZEN SHOULDER

NO EVIDENT CAUSE OR PROVOCATION

A Normal Shoulder
Persistently Painful
Global Stiffness
FROZEN SHOULDER

Persistent Shoulder and referred arm pain

Protracted Course: Freezing: painful stiffening

- 1 – 9 months
- Frozen: pain less, ROM frozen

- 6 months
- Thawing: Slow resolution

- 2 years
IDIO PATHIC

DOCTOR - IDIOT

PATIENT - PATHETIC
FROZEN SHOULDER

SHOULDER SPRAIN

ROTATOR CUFF STRAIN
CASE 1

MRS. SM – AGE 59 – CLEANER

FALL AT WORK
NECK – SHOULDER – ARM PAIN
MRI – C5-6 DISC

Surgery Recommended
CLINICAL EXAMINATION

LAY THE PATIENT SUPINE

FIX THE SHOULDER BLADE ON THE COUCH

PROTRACT THE RANGE OF MOVEMENT
IMPINGEMENT - EXTERNAL AND INTERNAL ROTATION ARE PRESERVED

FROZEN SHOULDER - ALL MOVEMENT RESTRICTED
CASE 2

MR. RP - AGE 48 - FREEZING WORKER

CONTUSION SPRAIN RIGHT SHOULDER

LIMITATION OF MOVEMENT - SEVERE RESTRICTION

CALCIFIC TENDONOSIS + FROZEN SHOULDER
CASE 3

MR. PW - AGE 46 - DAIRY FARMER

ROLLED 4WD BIKE - CONTUSION SPRAIN LEFT SHOULDER

DIABETIC

FROZEN SHOULDER
CASE 4

MRS. DH - AGE 46 - AIRPORT SECURITY OFFICER

FALL - ROTATOR CUFF TEAR LEFT SHOULDER

SIMPLE ROTATOR CUFF REPAIR

CRPS LEFT FOREARM AND HAND - 4 WEEKS

FROZEN SHOULDER - 6 WEEKS
FROZEN SHOULDER MAY BE ACCIDENT INJURY RELATED
PAIN PATTERNS - NOCICEPTIVE
  INFLAMMATORY
  NEUROPATHIC
  FUNCTIONAL

CENTRAL NEURAL SENSITISATION
CENTRAL NEURAL TRANSFORMATION
SYNOVITIS
? ! PATHO-PHYSIOLOGY ! ?

TRANSFORMING GROWTH FACTOR

PLATELET DERIVED GROWTH HORMONE

AUTO IMMUNITY

GENETIC PREDISPOSITION
ARTHROSCOPY
MRI
CHRONIC PAIN DISORDER

PERSISTENT PAIN

BEHAVIOURAL DYSFUNCTION
FROZEN SHOULDERS

DO NOT ALL EVENTUALLY RESOLVE
TREATMENT

NOT SURGICAL

PHYSIOTHERAPY

CORTICOSTEROID
Gentle thawing of the frozen shoulder: A prospective study of supervised neglect versus intensive physical therapy in seventy-seven patients with frozen shoulder syndrome followed up for two years

Ronald L. Diercks, MD, PhD, and Martin Stevens, PhD, Groningen, The Netherlands

Seventy-seven patients with idiopathic frozen shoulder syndrome were included in a prospective study to compare the effect of intensive physical rehabilitation treatment, including passive stretching and manual mobilization (stretching group) versus supportive therapy and exercises within the pain limits (supervised neglect group). There were no significant differences in age, sex, time elapsed since onset, and disease severity at inclusion. All patients were followed up for 24 months after the start of treatment. In the patients treated with supervised neglect, 89% had normal or near-normal painless shoulder function (Constant score ≥80) at the end of the observation period. This end result was reached by 64% within 12 months. In contrast, of the group receiving intensive physical therapy treatment, only 63% reached a Constant score of 80 or higher after 24 months. Both the level of the Constant score at range of motion without any form of passive stretching. To establish the effect of supervised neglect on frozen shoulder compared with an intensive physical therapy regimen that includes passive stretching and exercises that supersede the pain thresholds, a prospective study was designed in patients with well-defined idiopathic frozen shoulder syndrome. The study hypothesis was that, by treating patients with supervised neglect, a painless and better range of motion can be attained within a shorter time span than by means of intensive physical therapy with passive stretching and mobilization.

MATERIALS AND METHODS

All 77 patients with idiopathic frozen shoulder syndrome diagnosed between January 1997 and January 2001 were included. The diagnosis was established as defined by Lundberg et al. more than 50% motion restriction of the glenohumeral
CORTICO STEROID
INTRA-ARTICULAR KENACORT 80\textsuperscript{MG}

SYSTEMIC – PREDNISONE

\textsuperscript{20MG} - 10 DAYS
\textsuperscript{10MG} – 10 DAYS

70\% RESPONSE – 4 WEEKS
ADRENAL EXTRACT

World War 2 German Aircrew

British Spies
AND SO A MYTH WAS BORN
TO HELP YOU SEE IN THE DARK

British - Carrots
STEROIDS
Americans
Amphetamines
MECHANISM OF ACTION

Stabilises the Lysosomal Membrane of Immune system cells

Thereby Controlling the Release of Cytokines and P Substances

Thus diminishing the Inflammatory Reaction
Orthopaedic Surgeons aren’t just Bone Heads
CONCLUSION

FROZEN SHOULDER - Idiopathic
   - Accident Injury Caused

CLINICAL EXAM - Patient Supine
   - Protract True R.O.M

TREATMENT - Cortico Steroid
THANKYOU   -   PETER WELSH
TGF
LIMITATIONS : RESTRICTIONS

No don’t do’s
Can’t do’s

But pushing it doesn’t Help
How does it work?
## DEVELOPS IN A NORMAL SHOULDER

<table>
<thead>
<tr>
<th>Age</th>
<th>More common in diabetics</th>
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<tbody>
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<td>40-60</td>
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<table>
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<tr>
<th>Family history</th>
<th>Rarely recurs on the same side</th>
<th>20% on opposite</th>
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REGIONAL PAIN DIAGRAM
WHY : HOW

Auto immune Reaction
Myofibroblastic Proliferation
Transforming Growth Factor
Manipulation Under Anaesthetic

A gentle stretch over 2-3 minutes
ADRENAL CORTICOSTEROIDS

Glucocorticoids
- Regulates glycogen and lipid function
- Boosts energy levels

Androgens
- Anabolic, energy boosting