

Chronic Fatigue Syndrome

*Treating the person,
not the condition*



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Overview of Workshop

- Assume that all were at yesterday's talk
- CFS case definitions and guidelines (brief)
- A conceptual framework for CFS (it's different)
- Don't assume it is CFS - exclude medical causes
- Treating the person, iterative care vs CFS cures
- A practical, multi-consultation approach to Dx

Goals of Workshop

- A conceptual view of CFS and its demands
- Understanding that there is no treatment for CFS, but there are treatments for individuals with CFS
- Building a picture of causes and contributions through history & testing is useful for treatment
- A path for assessing and managing the chronically fatigued patient within a GP setting and without going crazy in the process (seriously)

What is CFS

- It is a *descriptive* syndrome, NOT *a disease*
- It is a combination of processes/pathology
- Challenge to the medical cause/disease/treatment
- Stable state of illness, possibly (mal) adaptive
- A disorder that's taken 25 years to fail our patients

Who gets CFS?

- Anyone *can* get CFS, but there is a “*type*”
 - Typically more creative, artistic, sensitive, intuitive, experiential, relationship oriented, holistic, caring, loquacious, emotional.
- Anyone *can* become a Dr, but we *tend* to be
 - Reductionist, goal oriented, scientific, statistical, evidence-based, brief & to point
 - Specialists can afford luxury of EBM!

Result?

- We may not be the right person to help
- CFS people will see through you if you are fake
- They will see other practitioners and internet
- They will come with crazy ideas and it is sometimes a challenge to handle that well
- Generally, you will turf the GOMER to a shrink

How CFS patients see Medicine



Treating a person with CFS
requires time, patience, a
willingness to hear their story
and a commitment to care
and not abandon them.

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This may kill YOU

The six main case definitions

- CDC 1988 case definition (Holmes et al)
- Australia 1990 (Lloyd et al)
- Oxford 1991 guidelines for research (Sharp et al)
- CDC 1994 case definition (Fukuda et al)
- Canadian CFS definition, Dx and Tx protocols
- CDC 2005 empirical definition (Reeves et al)

The Two Big Ones

- 1994 Fukuda case definition for research
 - December 1994, Annals of Internal Medicine
 - Most broadly quoted, adopted
- Canadian Case definition, Dx & Tx protocols
 - Broader selection, clinically focused
 - A complete mess to read and apply

Case Definition

Chronic fatigue syndrome (CFS) is defined as persistent and disabling fatigue of more than six months duration, for which no other medical cause is found.

PLUS

Case Definition

4 + of following - concurrent, persistent > 6 months, did not predate the fatigue:

- impaired short term memory or concentration;
- sore throat;
- tender cervical or axillary lymph nodes;
- muscle pain;
- multi-joint pain without arthritis;
- headaches of a new type, pattern, or severity;
- unrefreshing sleep;
- post-exertional malaise > 24 hours

Presentation (actual)

- “I’m tired all the time”, flu-like feeling
- Fatigue after exercise lasts days or more
- “I want my mind back”. Mental fatigue
- Gut problems (IBS, “coeliac” etc) in MOST
- Rapid onset vs gradual onset
- MCS = chemical exposure initiates exacerbations
- FM = pain as predominant symptom

Donohoe 2012

Dunedin Case Definition

Person, sick for months, who has been

- utterly stuffed, physically & mentally and emotionally after
- relatively trivial activity, stress or injury, where
- this goes on for days or weeks or months
- for no good medical reason, who
- suffered no *prior* psychiatric disorder, and
- who you believe is not bull-shitting you

I'm just hanging on by my fingernails



I'm feeling a bit vulnerable

Causes & Mechanisms

- CFS is a combination of conditions with multiple causes & mechanisms which accumulate over time, & a variety of “stress triggers”/exacerbations
- Viral, bacterial, parasitic, fungal (= post infectious)
- Immunological and host responses
- Inherited SNPs and mitochondrial weak spots
- HPA and neuroendocrine feedback loops
- About 100 other suggested causes

*Gut and
Nutrition*

Toxic

*Chronic
Fatigue
Syndrome*

*Inflammation
Immunity*

*Neuro-
endocrine*

munity

*Chronic
Fatigue
Syndrome*

tion

Neuro-endocrine

Do NOT assume it's CFS

- Medical assessment may identify pathology, disease & processes amenable to orthodox Tx
 - Thyroid, heart, cancers etc
 - Autoimmune disorders
 - Treatable infection
 - Nutritional - iron, vit D, iodine,
 - Toxic - occupational, agricultural, accidental

These are not part of CFS

- Focal neurological signs and symptoms
- Active infections with pyrexia and localisation
- Joints that are red, swollen and hot
- Hepatosplenomegaly
- Bleeding from anywhere except uterus
- Isolated, non-tender lymphadenopathy
- Any mass or tumour $\pm$ cachexia

Ix suggesting other Dx

- Anaemia
- Transaminitis or evidence of liver disease
- CRP over 10, or ESR over 40
- Heart failure, valvular Δ , pulmonary hypertension
- Abnormal CXR
- Renal disease (eGFR under 50 mls/min)

Thyroid

- Classic and simple hypothyroidism is easy
- TSH is often in 2.5 to 5 range
- Left axillary temperature @ rising <36.0 (analogue)
- Mild goitre - smooth = iodine, lumpy = thyroiditis
- May lead to testing - antibodies, urine iodine, U/S
- Consider a trial of a few months of thyroxine

Nutrition and Vit D

- Assess FBE and iron studies, esp in young females
- Vitamin D below 25 nmol/L is significant, <50 ??
- Calcium and red cell Mg, esp if cramps/myalgia
- Vitamin B₁₂ - match to diet intake
- 24 hr urinary cations (Zn, Se, Cu, Mn usually)

Exclude treatable infection

- Chronic infections which may be treatable
 - Gut parasitic infections and worms
 - Chronic lung infections
 - Hepatitis of any type
 - Gut dysbiosis / post-antibiotic
 - Fungal infections

Assess for autoimmune Δ

- Thyroiditis is the most common, females 20-40
- SLE or lupus like disorder
- Early rheumatoid disease
- Some types of vasculitis, polymyositis
- ?Fibromyalgia - rheumatologists are owning that

OK, so it's probably CFS

OK, so it's probably CFS
What *type* of CFS?

“Flavours” of CFS

- Post-infectious fatigue syndrome (PV-CFS, CEBV)
- Fibromyalgia as pain-dominant variant of CFS
- Toxic CFS following chronic or acute intoxication
 - Multiple Chemical Sensitivity may occur
- Slow onset vs fast onset (outcomes similar)
- Stress-related CFS (work, pregnancy, PTSD, etc)
 - Stress does not cause Δ – does find weak spots

A Practical Dr's Timeline

- I used to be a standard GP, CFS took me over
- Assume 15-20 min per consultation
- Assume no warning ahead of possible CFS
- Assume no prior pathology or testing available
- Assume presentation less than 6 months
- “I’m stuffed all the time and I don’t know why”

Consult 1 - Time 0

- Basic medical and family history
- Details of immediate antecedents of onset
- Examination assuming it is NOT CFS
 - Gut, goitre, neuro, nodes
- Organise some basic tests (exclusion pathology)
- Simple meds for pain and mobility

Basic testing consult #1

- FBE and iron studies (acute infection, anaemia)
- Biochem with LFTs, LDH and CK
- TSH ($\pm$ thyroid antibodies, urinary iodine if goitre)
- IgE (+ RAST multidiscs or skin test if atopic)
- Homocysteine
- Serology for clinically suspected disease

Treatment/Management

- Build trust with patient. Plan for next consult 2/52
- If pain, trial of NSAID or high dose Omega-3
- Open discussion on sunlight, outdoors, exercise, yoga, tai-chi, Qi-gong, meditation. Note response
- Diet and exercise for weight management
- Reassure that if there is any disease, you will track it down and treat it

Consult 2 - Time 2 weeks

- Review of results
- If clear cause found, pursue standard treatment
- If no clear cause found
 - Expanded Hx - work, diet, year before onset
- Examination based on results of testing
- Organise tests to explain fatigue, not exclusion

Expanded testing consult #2

- Urinary iodine (AM sample)
- Basic immunology (immunoglobulins, EPG)
- Stool test for parasites and C difficile toxin
- Expanded serology for other infections
 - EBV (esp Anti-early antigen antibodies if poss)
 - Other opportunist or local infections

Treatment/Management #2

- Reassure on initial results that no disasters
- Plan for next consult 4/52
- Treat problems ID on first pathology (Vit D, I etc)
- Review initial proposals sunlight, outdoors, meditation etc. Did they do any?
- Consider specifics - pain management, Q10 at 300mg, magnesium supplements, diet changes
- Manage gut with probiotics hi dose

Consult 3 - Time 6 weeks

- Review of results, get Hx of EBV infection
- If clear cause found, treat (parasites etc)
- If no clear cause found, reassure no death likely
- Discuss plan (path depends on Dr and Patient)
 - No Ix, treat on symptoms - 2-3 month review
 - Organise exotic tests - relentless pursuit

Expanded testing consult #3

- MTHFR C677T and A1298C SNPs/mutation if homocysteine raised or FH suggestive
- LSMs - CD4+, CD8+, NK, Total B and HLA-DR
- Lewis serology (“non-secretor”) and infections
- Endocrine assessment - steroid hormones
 - AM/PM diurnal loss, DHEAS low, menstrual
- Expanded serology for rarer infections?

Treatment/Management #3

- Manage pain - ? Pregabalin / lo dose amitryptaline
- Manage thyroid actively with T₃ or T₄
- Manage methylation defects - Methyl B₁₂/folate
- Manage sterol hormone defects ± melatonin sleep
- Manage diet with elimination and reintro/gluten
- Manage mitochondrial function with Q₁₀/Mg²⁺
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Consult #4 @ 3 months

- Prepare for the long haul, working with expanded team of practitioners, orthodox and otherwise
- VSL #3 or long term hi dose probiotics
- Nutrition, meditation, mindfulness and meaning