1/12/2019



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Learning objectives

Dr Laura Downie

nior Lecture

Translation Unit

- To understand the contemporary definition and classification of dry eye disease
- To know the diagnostic recommendations from the TFOS Dry Eye Workshop (DEWS) II report (2017)
- To be aware of practical approaches to implement these recommendations in clinical practice

TFOS DEWS II: objectives

- Update the definition, classification and diagnosis of dry eye disease
- Critically assess the aetiology, distribution and impact of the disorder
- Address its management and therapy
- TFOS DEWS II membership: 153 members from 23 countries



Clinical scenario

42-year old, female administrative assistant

PC. Reports eyes feel gritty and sore

- more pronounced end of day, especially after extended computer use · pharmacist recommended an ocular lubricant product, which she has
- been using regularly (4x/day)
- no apparent change to her level of symptoms

Occasional migraines with visual aura. No known allergies. GH.

POH. None.

FH. None















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Treatment of corneal neuropathy

Multimodal approach

- Treat any ocular surface damage: protection + anti-inflammatories
- Anti-neuropathic pain treatment?

Currently limited data to inform management

- First-line medications for neuropathic pain (tricyclic anti-depressants, opioids and opioid-like drugs)?
- Autologous serum tearsOmega-3 fatty acids

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DEQ-5 survey						
	DEQ 5 1. Questions about EXE DISCOMFORT: a. During a typical day in the past month, how offen did your eyes feel discenden?					
5-item survey	Nover Randy Sometimes Tregently Generatuly					
Captures information over the past month relating to: Errouency of watery over	Containing Note or yes fitd discender, how intense was this feeling of discandort at the end of the day, within two hours of going to bed? Nover N at at All Very Nover N at at All Nove National Nationa National National National National National National National					
Eye discomfort	0 1 2 3 4 5 2. Questions about EVE DRVINES: a. During a typical day in the post month, berr often did your eyes fiel day?					
 Intensity of dryness during the day 	Nover Indy Secondary Secondary Secondary Constant					
 Scoring Score ≥6: suspicion of dry eye 	b. When your eyes felt day, how intense was this feeling of dryness at the end of the day, within two hours of going to bed?					
 Score ≥12: may indicate Sjögren's syndrome 	Never Net at All Very have_it Intense Intense 0 1 2 3 4 5					
Shelone	Oceania abar WATRY DISE Doring a priori due fan per normen. New often del your eyes look or fad essenirely watery? New New New New New New New New New					
DEQ-5, 5-item Dry Eye Questionnaire	Score: Ia + Ib + 2a + 2b + 3 = Total 					

NIBUT	
Tear instability is a major feature	of all forms of dry eye disease
 NIBUT Observe reflected grid from precorneal film Time (in seconds) for visible distortion of the reflected target Normative values vary slightly with instrumentation Avg of 3 measures Poor correlation with NaFI TBUT 	Non-invasive tear breakup time (NIBUT)* < 10s & disconts & disconts & disconts & disconts & disconts





(Case scenario –	clinical findings			
	1. <u>T</u> riaging questions	Classic DED symptoms: ch no classic GH	ronic, worse end of day, risk factors		
	2. Risk assessment	Age, gender, computer use			
	3. Diagnostic <u>T</u> ests	Screening symptomology: 1. NIBUT (seconds) 2. Tear osmolarity (mOsmol/L) 3. Ocular surface staining	OSDI score: 29 (Moderate) R 9 L 8 R 309 L 305		
		Right-eye	Left eye		





<u>M</u> elbomian <u>G</u> lands Yield	iing L	iquid <u>s</u>	ecret	ion (N	sc) sc	ore	
		Right Eye (OD)			Left Eye (OS)		
		Temporal	Central	Nasal	Temporal	Central	Nasal
	Gland # 1						
	Gland # 2						
	Gland # 3						
	Gland # 4						
	Gland # 5						
Codelist 3 - Clear liquid secretion 2 = cloudy liquid secretion 1 = inspissated/toothpaste consistency 0 = no secretion	MGS	score of	f 12 or le	ess: clini	ically-sigr	nificant N	/IGD



Sur	nmary	
٥	Characteristics of DED Complex; role of neurosensory abnormalities should be carefully considered Highly prevalent and increases with age	
٠	TFOS DEWS II diagnostic approach: streamlined examination	
٠	Conduct a comprehensive work-up in a separate, dedicated appointment	

