| DEWS | **DRY EYE: DIAGNOSTIC TEST TEMPLATE** | |
|---|---|---|
| *RAPPORTEUR* | N Yokoi | *15ᵗʰNov 2004* |
| TEST | **Tear Film Lipid Interferometry** | |
| **TO DIAGNOSE** | To diagnose ATD <br> Also used in LTD diagnosis | REFERENCES |
| **VERSION of TEST** | [V 1] | Yokoi et al. 1966 |
| **DESCRIPTION** | The system permits the on-line imaging of the interference pattern created by the tear film lipid layer at its interface with the aqueous subphase of the tear film. | |
| **CONDUCT of TEST** | The subject is seated at the instrument with the subjects chin on the headrest. Variations of the interference pattern may be recorded digitally, on line. | |
| **Web Video** | Not available | |
| **Diagnostic value** | This version : [   ] <br><br> Other version: [   ] <br> Using the prototype of DR-1®, based on a 2 mm diameter observation area, Yokoi et al., 1996 proposed the following classification of interference patterns: <br> Grade 1 shows grayish color and uniform distribution. <br> Grade 2 shows grayish color and non-uniform distribution. <br> Grade 3 shows a few colors with non-uniform distribution. <br> Grade 4 shows many colors and non-uniform distribution. <br> Grade 5 shows the corneal surface is partially exposed with no lipid layer interference. <br><br> In this study, it was found that there was a significant correlation between the grades and the severity of dry eye. Normal control eyes were classified as Grade 1 or 2, while (aqueous-deficient) dry eyes were classified as either grade 2, 3, 4 or 5, implying the possible applicability of this classification for the screening of dry eye. However, since there is an overlap in Grade 2 between normal and dry eyes - the sensitivity is not so good, athough the specificity **is** good – if Grade 3 is determined as cut-off grade. <br> . | Yokoi et al.1996 |
| **Repeatability** | Intra-observer agreement. **[NA]** <br> Inter-observer agreement. **[NA]** | |
| **Sensitivity** | **[NA]** | |
| **Specificity** | **[NA]** | |

**References**

Yokoi N, Takehisa Y, Kinoshita S. Correlation of tear lipid layer interference patterns with the diagnosis and severity of dry eye. *Am J Ophthalmol* 1996;122:818-24.