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Corneal sensitivity in normal subjects as measured using the Cochet-Bonnet aesthesiometer

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Research Questions:

What is the range of values for corneal sensitivity in normal subjects as measured using the Cochet-Bonnet aesthesiometer?
Does the measurement of corneal sensitivity in one eye affect subsequent measurements in the fellow eye?
Is there a difference in corneal sensitivity between fellow eyes?

Methods:

34 *normal* subjects – sensitivity measured in both eyes
19 subjects RE measured 1st, 15 subjects LE measured 1st
0.12mm nylon filament CB aesthesiometer used



Conclusions:

The maximum corneal sensitivity measurement that can be made using this type of Cochet-Bonnet aesthesiometer is 0.4g/mm². It is possible that the range of corneal sensitivity in normal subjects may in fact extend beyond this value.

Measurement of corneal sensitivity on one eye does not appear to affect the subsequent measurement on the fellow eye.

Using an undiseased eye as a control to check for decreases in corneal sensitivity in a fellow eye should be done with caution, bearing in mind that in this study, inter-eye differences of 2.8 g/mm² have been found in normal subjects.

Results:

Range from 0.4g/mm² to 0.8g/mm²
The distributions in the two groups (RE 1st and LE 1st) did not differ significantly (Mann–Whitney $U = 279.5$, $n_1 = n_2 = 28$, $P < 0.05$ two-tailed).

The range of differences found between fellow eyes was from 0 g/mm² to 2.8 g/mm².