Slide presentations: think about colour blindness

The recent meeting of the European Spine Society in Kos deserves some comment as far as the presentation of the papers is concerned. Overall the quality of the papers was good, yet too often elementary notions of slide presentations were ignored.

Indeed, some form of colour blindness occurs in 9% of the male population. Therefore, the adequate use of colour combinations is essential to allow all to read what is written. Texts, diagrams, curves a.s.o. should contrast clearly and some basic rules must be respected.

Colour vision requires a minimum of three discrimination channels, represented by three different pigments occurring in three different classes of retinal cones. To accurately describe any colour, one must specify three attributes: hue, saturation and brightness. Hue is the attribute of colour perception and depends largely on what the eye or the brain perceives to be the dominant wavelength present in the incoming light. The exact colour seen depends on the quantity of each colour used. Unlike the ear that can distinguish several musical instruments at once, our eye and brain cannot determine which wavelength of light are present in the colour we see. Saturation corresponds to the purity or richness of a colour and brightness refers to the quantity of light coming from an object.

The relative luminosity of colours depends on the state of dark adaptation (the so-called Purkinje effect). As the

eye dark adapts and rods begin to send messages, blues and greens appear to gain in relative brightness when compared with yellows and reds. In colour blindness there is a high discrimination threshold for particular colours. Approximately 9% of men and 0.5% of women are colour blind. Colour blindness is inherited in a sex-linked recessive pattern. In general, colour deficient people are confusing colours rather than being blind to them. The unthoughtful use of certain colour combinations when making slide presentations will exclude a good percentage of the audience. Dark adaptation, which is the rule during scientific meeting presentations, makes the use of red on a blue background and yellow on a green background an unhappy combination for slides. In order to make slides which can be easily read by the whole assistance, it is enough to respect the following guidelines: **do not use combinations of green and red, and avoid red letters on a blue background or yellow letters on a green background.**

During the latest Editorial Board meeting, new guidelines were defined for the European Spine Journal. In particular, case reports will only be published if their relevance is of major importance. Yet, there was a backlog of accepted case reports awaiting publication and a large part of these have been included in this issue. Further issues will reflect the new guidelines and include original articles, current trends and innovations.

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