

CLINICAL CASE - REVERSAL OF COLOR PERCEPTION AND ALTERATION OF VISUAL FIELDS AFTER DEFECT ACQUIRED IN A COMMERCIAL PILOT

CAS CLINIQUE - INVERSION DE LA PERCEPTION DES COULEURS ET ALTÉRATION DES CHAMPS VISUELS APRÈS UN DÉFAUT ACQUIS DANS UN PILOTE COMMERCIAL

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Introduction: Color perception, is a complex process involving both retinal and occipital visual cortical activity. Normal individuals have three types of cones with normal amounts of their respective pigments and use all three mechanisms in color perception and color matching. Color vision defects occur when there is deficiency in one or more of the three cone pigments, and there are all grades of severity of the defects. There are variations in the prevalence of color vision defects. Caucasians have the highest prevalence. African Americans, Japanese and Chinese have about half this prevalence, and the lowest rate is found in native Africans.

Case: The case involves a First-Class Pilot, Cape-Verdean, male, 27 years old, who after three years as a Commercial Pilot presents alteration in color perception and tubular vision. The ophthalmologic examination presented bilateral 10/10 visual acuity, marked degradation of color vision - 1/17 in the ISIHARA TEST, inside the ophthalmology office and when tested in daylight (chromatic desaturation). In the computerized Campimetry he had marked constriction of the visual fields, bilateral, more pronounced to the left. Deny family history of color blindness. Denies consumption of illicit substances and medicines. Deny cranial-head trauma.

Discussion: The pilot was assessed as unfit according to national and ICAO international rules. This is the first national registered case of acquired color vision defect and abnormal fields of vision, without identifiable cause, and that motivated the cancellation of the license of the pilot. After two years, the situation was reversed, and the pilot is currently in possession of his license, after demonstrating that he is fit. The causes of those changes are still not clear.