THE FLAVOR PERCEPTION TEST IN PATIENTS WITH KALLMANN SYNDROME

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Kallmann syndrome (KS) is a congenital hypogonadism associated with olfactory impairment. Previous studies demonstrated that patients with olfactory loss, rather than olfactory impairment, complain of flavor, a complex gustatory function, related to taste and olfactory integrity, distortion, with serious repercussions on their global quality of life (QoL). This study evaluated the flavor perception-related disability in 30 KS patients, 12 with normosmic hypogonadism (nIHH), 24 with acquired anosmia (AA), and 58 healthy controls. All participants performed questionnaires on dietary habits, olfaction-related QoL, self-determined olfactory, flavor and taste abilities, olfactometry and gustometry.

Subjects underwent flavor score (FS), identifying 21 orally aromatic solutions (range 0–21). Flavor self-perception was similar in KS, nIHH, and controls, whereas reduced in AA.

FS was similar between KS (5.4 ± 1.4) and AA (6.4 ± 1.9), and lower than in nIHH (16.2 ± 2.4, $p < 0.001$) and controls (16.8 ± 1.7, $p < 0.0001$). FS correlated with olfactory scores in the overall population. KS and AA patients identified aromatics by trigeminal stimulation better than pure odorants.

Olfaction-related QoL was better in KS than in AA. We found a significant flavor impairment in KS although they, differently from AA, did not complain of flavor impairment, perhaps for the congenital nature of the dysfunction. Flavor perception impairment should be considered a specific KS disability for detrimental effects on physical and mental health and on QoL. KS patients should also be advised of this impairment to prevent accidental and life-threatening events.