PAROSMIA

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CHANGES of the sense of smell may be of quantitative or qualitative origin, possibly a combination of both.

Quantitative changes may manifest themselves partly as hyperosmia and partly as hyposmia or anosmia. The latter type is by far the more common.

Qualitative changes have been designated by Hofmann (1926) as parosmia which includes also:

1. Olfactory hallucinations which may occur in psychotic patients, especially schizophrenics, and in severely neurotic patients.
2. Uncinate fits (Jackson and Beevor, 1890), i.e. attacks of sensations of smell, possibly accompanied by other phenomena of temporal irritation. These sensations are elicited by irritative processes in the anterior part of the temporal lobe, the uncus.
3. Cacosmia, i.e. a periodical or constant bad smell due to abnormalities of the nose, sinuses, and pharynx, such as sinusitis, atrophic rhinitis, ozaena, and tonsillitis.

The treatment of the named condition is directed at the underlying disease.

Essential parosmia is taken to mean a condition in which stimulation of the sense of smell does not result in the adequate olfactory impression, but instead in a perverted sensation, nearly always of a foul odour.

This may be observed after treatment with drugs, systemic (e.g. streptomycin and arsphenamine) or after topical application to the nose of e.g. tyrothricin, a drug which should never be used for nasal solutions as has frequently been done.

Infectious diseases, especially influenza, may be followed by long-continued essential parosmia. This has been reported especially by doctors who have had this experience themselves (e.g. Hofmann).

Cranial injuries may be followed by long-lasting parosmia, even in patients whose sense of smell is greatly impaired.

Essential parosmia is often observed in the presence of impairment of

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the sense of smell of the most varied causes. On the other hand, the occurrence of parosmia in a patient with a greatly impaired sense of smell may be the first sign that the sense of smell is returning.

In many cases, however, it is impossible to demonstrate a cause.

In the course of the past 8–10 years we have observed twenty cases of essential parosmia as the sole symptom, a condition which to our knowledge has not been reported previously.

All the patients were women in the age range 35–55 years, who had never before had any nasal or olfactory complaints. All had consulted numerous doctors, and the parosmia had in most cases been interpreted as neurotic, although the patients did not exhibit other neurotic features.

In most of these patients the symptoms were so severe that they had not the slightest wish to eat anything, as all food had an unpleasant taste and smell.

Numerous investigations, including blood and urine, showed completely normal conditions. Quantitative studies of the smell (Zilstorff-Pedersen, 1964) and taste (Krarup, 1958), and investigation of the nasal cavities also failed to reveal any abnormalities.

The treatment of essential parosmia is difficult, and the literature gives no help except for suggesting attempts at masking with pleasant-smelling substances. However, this is merely symptomatic treatment.

Since in our department we have been interested, for many years, in studying and treating changes in the sense of smell, we tried treating these women by various methods (including hormones, vitamins, sedatives, and antiepileptics), but we found that only blocking of the olfactory region by cocaine gave rapid improvement, and—after three to five blocks —the parosmia would yield.

The technique is identical with that which we have used for investigating the local effect of various substances upon the sense of smell (Zilstorff-Pedersen, 1955).

The patient lies supine with her head bent far backward, so that the external porus acusticus and the chin are in the same vertical plane. In this position, the olfactory region is under most, and two drops of 10 per cent. cocaine hydrochloride in physiological saline instilled into the nostrils will run down into the olfactory region.* The application is followed by transient hyp- or anosmia (Zilstorff-Pedersen, 1965).

All twenty women of the named group were cured by this treatment. However, a few required two to four series of three to five treatments at intervals of months because of relapse.

I do not know the mechanism of the effect, but assume that there is a question of interrupting an abnormal state of peripheral irritation or a reflex arc. The effect may presumably be compared with the curative

* The patient lies in this position for about 30 seconds.

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effect of a few injections of novocaine (without adrenaline) upon supraorbital neuralgia.

We have tried treating other essential parosmias with cocaine, and the majority have been cured. The cured cases are presumably due to abnormal processes peripherally in the receptor organ or in the fila olfactorii.

In the few patients who were unaffected by the cocaine therapy, the condition has probably been of a more central genesis or due to other pathological processes, not susceptible to cocaine.

These latter patients we have been able to help by the previously mentioned treatment of inserting a cotton pack with a few drops of perfume into the nose when the smell became too strong and not least when the patients were going to have their meals.

Summary

Changes in the sense of smell may be quantitative or qualitative. The latter are called parosmia. Various forms of parosmia are described.

A syndrome in which parosmia is the only, and very bothersome, symptom has been observed—exclusively in women in the age range 35–55 years.

The treatment is described.

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