

From the Department of Allergy, Hadassah University Hospital,
Jerusalem, Israel.

HAY FEVER DUE TO THE POLLEN OF CUPRESSUS SEMPERVIRENS

Italian or Mediterranean Cypress

By

J. TAS

The main hay fever season in Jerusalem is in April and the beginning of May, and is due to grass pollen. Ten to twenty per cent of the total number of hay fever patients, however, (including those sensitive to the olive tree, *Olea europea*, and/or the tree of heaven, *Ailanthus glandulosa*) suffer from about mid February until mid March.

In order to elucidate the cause of their symptoms, (rhinitis and/or conjunctivitis and/or asthma) coated slides were placed on the windowsills of 4 different patients. The common denominator found on the slides was the pollen of the cypress tree. Consequently the patients were tested with a pollen extract of the local cypress (*C. sempervirens*): the reactions were positive.

The next year desensitisation was tried with moderate success.

Two illustrative cases are given here:

1. (41018). A woman, 50 years of age, who had immigrated from Germany in 1935, began to suffer from rhinitis and conjunctivitis after her first few years in what was then Palestine. The symptoms started about the middle of February and lasted for about one month. This affliction, from which she had suffered for more than 20 years, has prevented her from working for one or more weeks each year. During the last few years attacks of asthma had accompanied the rhinitis and conjunctivitis. Antihistaminics were not able to suppress her suffering. Steroid treatment was refused.

Skin tests were positive for grass pollen and for olive tree, but notwithstanding these positive tests, the patient did not suffer either in the grass pollen season (April-May) or in the olive tree season (June).

A test with Italian cypress was positive.

The patient was treated pre-seasonally with Italian cypress pollen, and for the first time in more than 20 years she was able to continue her work during February and March, although not completely free of complaints.

2. (000070). The patient, born in Israel, had suffered from the age of 13 from a "cold", *i.e.* sneezing and a watery discharge from the nose, especially in the spring time, starting in February. He also complained of itching of the eyes, and during the last few months had suffered from asthmatic attacks almost every night. He reported that his health was excellent during military service in the Negev Desert.

At the examination the mucosa of the nose was pale and swollen. There were numerous dry rales in the lungs.

Skin tests for house dust, molds, pollen mixture (Bencard) olive tree and cat hair were positive. Because his complaints were worse in springtime, starting in February, a test with Italian cypress was also performed, and was strongly positive.

The following year he was given pre-seasonal treatment with the pollen of the Italian cypress with mixed pollen (Bencard), and with mixed molds (*Alternaria*, *Hormodendrum*, *Penicillium*, *Aspergillus* and *Helminthosporium*).

For the first time in more than 10 years, the patient was virtually free of complaints.

DISCUSSION

Many cases of hay fever due to the Italian Cypress have been found in the Jerusalem area. Since this tree is widespread in the Mediterranean area, it seems rather surprising that little has been published on this pollinosis, which is probably responsible for much hay fever in the area. The only report which could be traced in the literature was a paper by Ordman (1). The paper deals with sensitivity to *C. arizonica* and *C. lusitanica*, both occurring in South Africa. The *C. semper-virens* is also widespread in S. Africa, but its pollen was not tested.

The cypress tree is the most prolific source of pollen in the Jerusalem area, even more so than the pine tree.

In a pollen survey (3) a monthly total of maximum 1687 per cm² was found (March, 1954). The maximum for the

pine was 921 (March, 1956), and for the Gramineae 170 (May 1953).

The *Cupressus sempervirens* is autochthonous (2) (*Edom, Gilead*) and moreover much cultivated. There are two varieties, the tall *C. sempervirens* var. *pyramidalis*, and the *spreading* var. *horizontalis*. The Jerusalem area also contains two imports from North America, the *C. arizonica* and the *C. macrocarpa* (Monterey cypress). Tests with pollen of the *C. arizonica* and the *C. macrocarpa* were negative in our patients.

SUMMARY

The Italian cypress tree is widespread in the Mediterranean and is the most prolific source of pollen in the Jerusalem area, yet sensitivity to it has not previously been described. It was shown that patients who had symptoms from mid-February to mid-March were sensitive to the Italian cypress tree pollen.

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REFERENCES

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