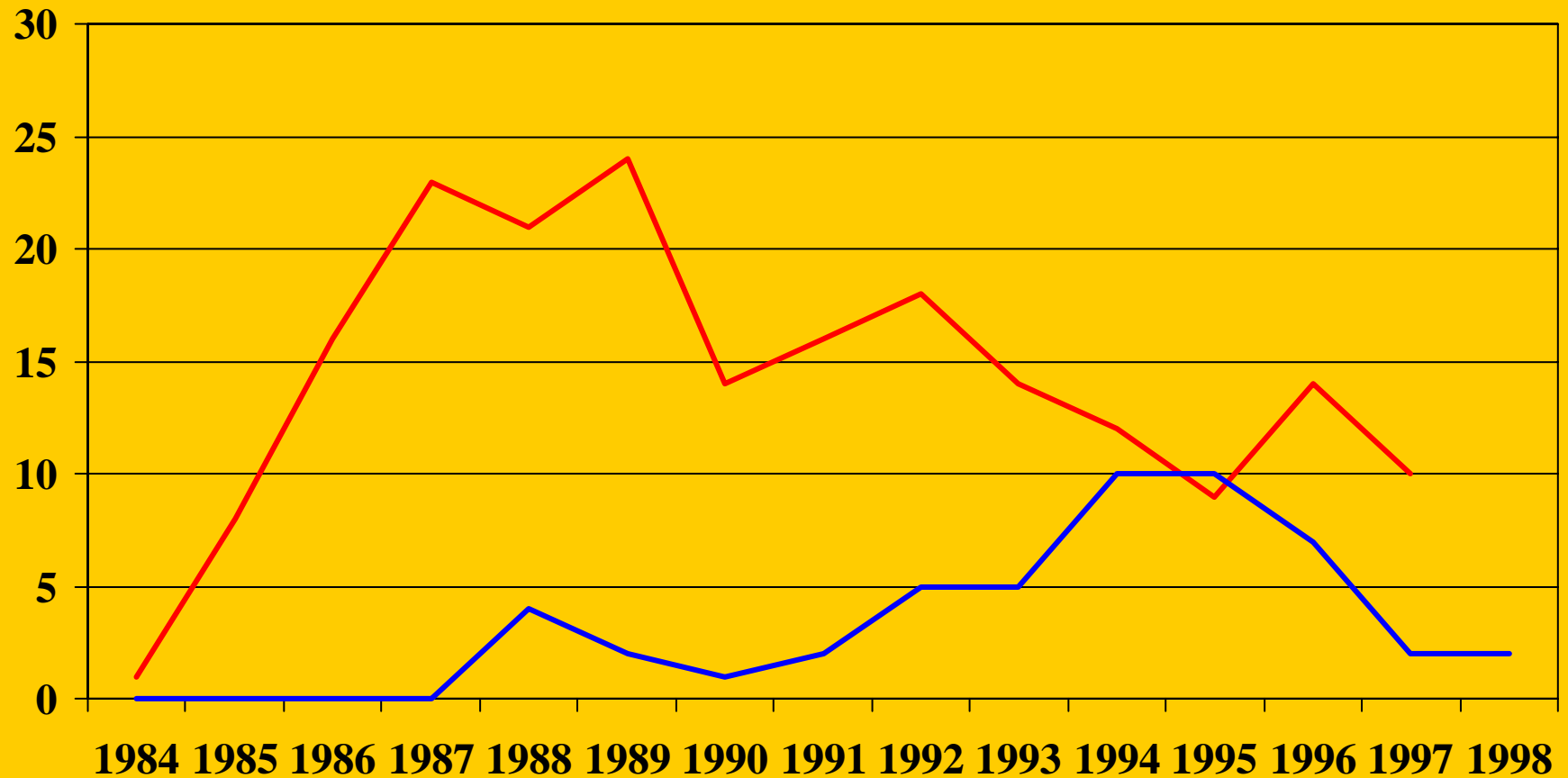


Characterising Electrical Hypersensitivity

Assoc. Prof. Berndt Stenberg
Dept. of Dermatology
University Hospital
SE-901 85 Umeå
Sweden
berndt.stenberg@vll.se

Referred patients (Umeå, Sweden)



A Venn diagram with two overlapping circles. The left circle is larger and contains red text. The right circle is smaller and contains blue text. The intersection of the two circles is also filled with blue text. The background is yellow.

Facial skin symptoms

VDT work
(fluorescent light)
(TV set)

Facial skin symptoms
General symptoms (fatigue)
Neurological symptoms
(dizziness)
Cognitive disturbances
(memory loss)

"Electric environment"

Terminology

- "VDT-related skin symptoms" (VSS)
"dermatological syndrome"
- "Electrical hypersensitivity" (EHS)
"general syndrome"
- "Environmental illnesses"

Electrical hypersensitivity

- "... a phenomenon where individuals experience adverse health effects while using or being in the vicinity of devices emanating electric, magnetic or electromagnetic fields (EMFs)"

Demographic factors in relation to the general population

- Electrical hypersensitivity (EHS)

- slightly older*

- lower income*

- different ethnic background*

- more women*

- VDT-related skin symptoms (VSS)

- more women

- (In clinical reports of EHS and VSS, females are more over-represented than in population studies)

*Mixed groups?

Personal factors in relation to the general population I

- Electrical hypersensitivity (EHS)
 - atopic illnesses*
 - other “environmental illnesses” such as symptoms attributed to amalgam dental fillings and “chemical sensitivity”*
 - different self image
 - different coping resources
 - proneness to anxiety
 - traumatic life events

*Mixed groups?

Personal factors in relation to the general population II

- Electrical hypersensitivity/VDT-related skin symptoms
sensitive to external stimuli such as noise and flickering light
disturbed pattern of circadian rhythms of heart rate (dysfunction of the autonomic nervous system)

Symptoms

- VDT-related skin symptoms (VSS)
sensory sensations (such as stinging, itching, burning) and signs such as erythema, eczema and rosacea of facial skin
- Electric hypersensitivity (EHS)
Facial skin symptoms as above*, fatigue, headache, sleep disturbances, dizziness, cardiovascular symptoms, cognitive disturbances such as difficulties concentrating and memory loss

*warmth behind or on the ear in cell phone users





Prognosis

- The natural history is difficult to establish
- VDT-related skin symptoms have a favourable social and medical prognosis and improve over time
- Electrical hypersensitivity has a worse prognosis and a considerable number of persons, particularly women, stop working

Conclusions

- Women are over-represented
- A distinction between VDT-related skin symptoms and electrical hypersensitivity seems gainful
- Subjects with electrical hypersensitivity in particular may have personality and psychological/physiological traits making them more prone to react to mental and physiological stress
- Both groups need early and consistent management
- Patients should be helped to achieve an increased awareness of their vulnerability