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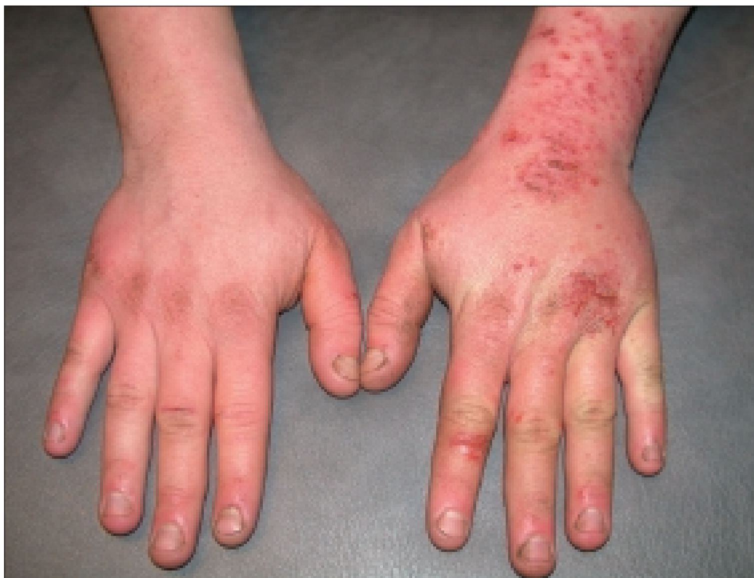
Necessity for a dedicated occupational skin disease clinic in South Africa – first 8 months

Occupational skin disease (OSD) is a common cause of work-related morbidity and it accounts for 5–6% of all claims submitted to the Compensation Commissioner for compensation in South Africa under the Compensation for Occupational Injuries and Diseases Act, No. of 130 of 1993.[1] Figures supplied by the Compensation commissioners office for the years 2003, 2004 and 2005 show that 10, 50 and 29 cases of OSD respectively, were finalised (Dr Sekudu – personal communication). The total employed number of people for these years was 11,4, 11,6 and 12,3 million respectively.[2] International surveillance studies have shown figures which range from 5–19 cases per 10 000 workers per year in many countries and that occupational skin diseases constitute a substantial proportion of compensated occupational disease – as much as 30%.[3] Thus it can be stated that occupational skin disease in South Africa is under-recognised and under-reported and that the compensated cases are a poor reflection of the real number of cases which occur annually.[4] There are several factors which may be playing a role. Workers may not seek medical attention. If they do, occupational health doctors and nurses may not recognise that the problem is work related[5] and may attribute it to other factors, e.g. HIV\AIDS. Health care workers may not show clearly the connection between the skin disorder and the workplace and the documentation may not be properly completed or submitted to the Department of Labour.



In order to assist with the management of occupational skin diseases and to raise awareness of the problem in this country an OSD clinic was established at the National Institute for Occupational Health (NIOH). The aim of the clinic is to provide an affordable service to workplaces and their workers who are suspected of having OSD. The clinic is staffed by a dermatologist with a special interest in occupational skin diseases, an immunologist with a specialised interest in patch testing and allergic contact dermatitis, a professional nurse who organises the clinic and arranges for the submission of documentation to the Compensation

Commissioner, and a clerk who is adept at eliciting the detailed occupational history required.

In an article by Ormond *et al.* it is reported that '….having a clinic where 'larger batteries (of allergens) are available and a more widespread testing of patients' own products' is done resulted in an increase in detection of allergic contact dermatitis.[6] It is similarly hoped that this clinic will provide this added advantage to the assessment of occupational contact dermatitis.

Procedures followed in the OSD clinic

• A detailed medical and occupational history is taken. Special account is taken of substances to which the worker is exposed in the work environment, the nature of his/her work, and predisposing medical factors such as atopy.

• The patient is examined to assess the nature of the skin disease, the distribution and severity and the likelihood of it being occupationally related.

• Material safety data sheets are used to obtain information on substances in the workplace.

Specialised tests conducted by the OSD clinic

The following tests are performed where indicated:

• Specimens are sent to the laboratory for microscopy and fungal culture.

• Patch tests are performed for the diagnosis of allergic contact dermatitis and identification of the specific causes. Various patch test series over and above the standard European series are available for testing where indicated. These include the rubber chemical series, the epoxy series and metalworking/coolant series.

• Substances from the workplace are prepared for allergenic testing and administered. Tests are read after 72 hours.

• Skin prick testing for atopy as well as blood for IgE and phadiotop are done. These are useful in the detection of underlying atopic diathesis which predisposes to the development of irritant dermatitis.

• Site visits by a multidisciplinary team of experts are occasionally called for. These assist in the identification of potentially hazardous situations and an understanding of the workers' exposure.

Diagnosis of occupational skin disease

The vast majority of occupational skin disease cases have contact dermatitis. The diagnosis of occupational skin disease is made by referring to laid down criteria circulated by the Department of Labour in South Africa.[7]

• There should be a chronological relationship between onset of the skin disease and duration of employment.

• There should be a history of occupational risk factors which include physical, chemical and biological factors. There may be exposure to substances that are known to be allergenic or irritant.

• Patch tests will prove a diagnosis of allergic contact dermatitis if the worker is shown to be allergic to substances to which he is exposed in the workplace.

• Irritant dermatitis is more difficult to prove and is diagnosed by exclusion.

• The patient should have recurrent disease or the skin disease should be resistant to treatment for more than 6 weeks before a case will be accepted for compensation.

Management of cases

All referred cases are assessed and treated. A comprehensive report is drawn up and the patient is referred back to his dermatologist or health care worker for further follow up. In some cases the worker is asked to return to the occupational clinic for further assessment. In those workers whose disease has been judged to be occupationally related, consideration is given as to the reduction of exposure of workers to potentially problematic chemicals and environmental hazards. As the NIOH is a multidisciplinary institution assistance is also available for workplace risk assessments.

Thus recommendations for sick leave or change of employment are made in consultation with the worker and his employer.

> ***"The aim of the clinic is to provide an affordable service to workplaces and their workers who are suspected of having OSD."***

The necessary compensation forms are completed and submitted. Follow up of these submissions to the Compensation Commissioner's office is an important aspect of the clinic's function.

Treatment is prescribed and the patient is referred back to his/her dermatologist or health care worker for further follow up. A comprehensive report with recommendations is provided and if a worker is judged to have an occupational skin disease, the necessary compensation forms are completed and submitted.

Review of cases seen since the clinic's inception

- Fifty-five patients were seen in the first 10 months of the clinic from a variety of workplaces such as: car maintenance workshops, metalworking workshops, mining, workplaces where epoxy resin is used; healthcare facilities; industrial cleaning companies, etc.
- Thirty-five (64%) of these cases were determined to be aggravated or caused by the work environment. Eleven (20%) patients had non-occupational skin disorders including psoriasis, stasis dermatitis and a case of fibromatosis.
- The remaining 9 (16%) cases had dermatitis but in these patients a relationship with the work environment could not be established.

(See Figure 1)

Patch test results

Patch tests, using the European standard series, were done on all cases suspected of having occupational contact dermatitis. In addition, where relevant, patch tests with the metalworking/technical oil series, the epoxy resin series and the plastic/glues series were performed.

Of the 55 patients who attended this clinic:

- Six (11%) were shown to have only true allergic contact dermatitis to substances at work.
- Sixteen (29%) cases were judged to have a mixed picture of irritant dermatitis and true allergy – related to work exposure.
- Twelve (22%) cases were judged to have irritant dermatitis only.
- One patient (2%) was shown to have contact urticaria to latex gloves.

Thus 64% of all cases referred to the occupational dermatitis clinic have been judged to have occupational skin disease and the relevant forms were completed and sent to the Compensation Commissioner for consideration.

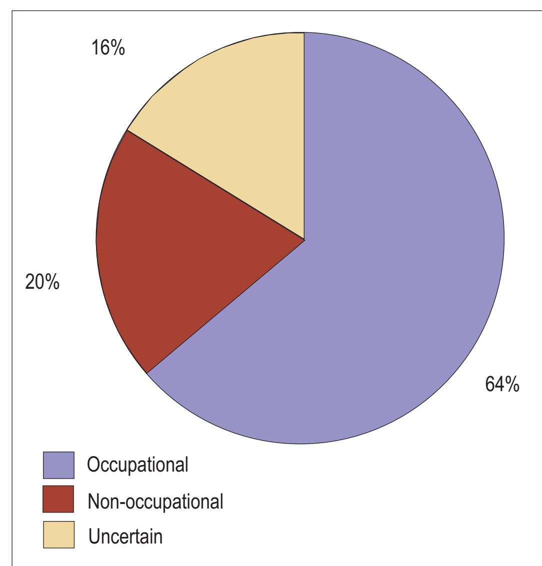


Figure 1. Occupational status of cases

Summary

The occupational skin disease clinic sited at the NIOH has assessed 55 workers over a period of 10 months in a manner highly cost-effective to both industry and workers and thus does have an important role to play in assisting in the diagnosis and management of occupational skin diseases.

Further follow up needs to be done to ensure that these forms in fact reach the correct person at the Department of Labour and are dealt with expeditiously and efficiently. A subsequent article will deal in greater detail with the methodology and findings of patients referred to this clinic.

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