Examination of the hands: an insight into the health of a Welsh population

H A White, R Alcolado, J C Alcolado

METHODS

In a two week period in 2002, we examined the hands of 197 patients admitted to general medical and surgical wards at the Royal Glamorgan Hospital, Llantrisant, Mid Glamorgan, UK. This is a district general hospital with 400 beds that serves a local population of 180 000. It is situated in the South Wales valleys, an area that until recently had an active coal mining industry. In order to reduce selection bias, we reviewed the medical notes of every patient on the wards, regardless of age, gender, diagnosis, or presenting complaint. Both undergraduate and postgraduate examinations.1 During a separate period we checked the medical notes of 70 inpatients for evidence of a documented physical examination of the hands. We excluded all cases of ‘no clubbing’ was the only entry. However, when the authors carefully examined the hands of 197 patients, at least one clinical sign was found in 87 (44%) cases. Heberden’s nodes, cigarette tar staining, and the spectrum of Dupuytren’s contractures were the most common findings. In this population in the South Wales valleys, coal deposits were also commonly seen in men.

When asked to examine a patient in a clinical examination, undergraduates and postgraduates characteristically begin with a painstaking observation of the hands. It was of concern that this is done mainly for the benefit of the examiners and that, in routine clinical practice, examination of the hands receives scant attention. The case notes of 70 general medical and surgical inpatients were reviewed and it was found that in only seven was there any mention of physical examination of the hands; in three of these 'no clubbing' was the only entry. However, when the authors carefully examined the hands of 197 patients, at least one clinical sign was found in 87 (44%) cases. Heberden’s nodes, cigarette tar staining, and the spectrum of Dupuytren’s contractures were the most common findings. In this population in the South Wales valleys, coal deposits were also commonly seen in men.
**DISCUSSION**

The aim of physical examination is to obtain the maximum amount of reliable information with the minimum of patient inconvenience or distress in a relatively short period of time. It is customary to shake hands with a patient and we believe a careful inspection of the hands at this stage should not be neglected. Although doctors may not specifically record the absence of signs in medical records, we were concerned that the hands were not mentioned at all in 90% of medical notes. While we found 44% of patients we examined had physical signs in the hands, fewer than 6% (4/70) of inpatient notes recorded their presence (p<0.0001).

The prevalence of coal staining of the hands in our population is likely to be much higher than in non-mining communities, but it serves as an important clinical reminder of the health risks that many men in the Welsh valleys have endured. The overall prevalence and gender differences of Heberden’s nodes are similar to those reported in a previous study. It has been suggested that this physical sign is associated with occupations requiring sustained precision grip force. One of our female patients, with predominantly left handed Heberden’s nodes, was convinced that they were related to her previous work as a weaver and we were able to identify a case report that lends support to her contention.

The fact that undergraduates and postgraduates almost invariably examine the hands when undergoing a test of their clinical ability, such as finals or the MRCP, suggests they have been taught and learnt its potential clinical value. It would be interesting to ask doctors why they subsequently appear to discard this clinical skill. Given it is relatively simple, quick and reliable, we would encourage all physicians to examine the hands once again.

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**LEARNING POINTS**

- Examination of the hands should be an integral part of the general physical examination of all patients.
- Despite the importance placed on this aspect of physical examination in medical education, only 10% of general medical or surgical inpatient notes make any mention of the hands.
- Even when examination of the hands is recorded, details are often scant—for example, ‘no clubbing’.
- Careful examination of the hands will reveal physical signs in more than 40% of patients.
- Some physical signs—for example, coal deposits or Heberden’s nodes, may be a marker of previous occupation.
- Tar staining of the fingers is seen only in a minority of smokers.

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**REFERENCES**


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