

Sniffing 'Infection Scents': A Cross-Sectional Investigation of Odours from Infectious Disease Patients

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Abstract

Many sorts of scents emerging from the host are related with infectious illnesses. However, no research has been done on 'infection odour', which is the smell that is common to most diseases. We looked for any such physician-identifiable odour (infection odour) that would provide a useful clue to the diagnosis of infectious disease. The study physician approached 52 hospitalised infected patients and 61 non-infected patients during a one-month period in the Tertiary Govt. General Hospital in Guntur, India, to detect the scents emitting from them. The physician noticed a scent coming from the patient during the clinical examination. Data about the patient's clinical profile, as well as the nature and severity of the ailment, was gathered. Smells of patients with infectious diseases are compared.

Keywords: Cross sectional study • Infectious disease • Case control study

Introduction

Patients with infectious disease make up a large amount of a doctor's daily practise, despite the fact that he or she sees a wide range of patients. These people have a wide range of symptoms and indications [1-3]. The practitioner searches for specific patterns by observing, listening, and occasionally smelling for clues to the diagnosis. Anecdotally, the putrid odour of diphtheria, the baked bread scent of typhoid, and the vile smell of anaerobic infection are all prevalent [4]. Mosquitoes are attracted to fragrances produced by people affected with vector-borne diseases like malaria [5]. Women can perceive disagreeable odours from gonorrhoea-infected men's nongenital areas. Each of these distinct odours has a biological foundation, originating from specific metabolites that escape through the lungs or skin.

This discrepancy could have been caused by the pyrogenic cytokines, or they could have changed the patients' behaviour to encourage them to drink more fluids, contributing to the smell of dampness [5]. Animals in distress emit distinct odours. Similar systems exist in the human body. Because hospitalisation is a source of stress in and of itself, we used hospitalised non-infectious sick patients as controls to match this potential confounder [6].

Furthermore, investigations have revealed that a considerable majority of individuals with a culture-proven infection do not have an elevated temperature or a low leukocyte count [7]. In some circumstances, identifying an infection-specific odour could be helpful in detecting the

patient's illness. We went on the hunt for this 'infection odour.' Humans choose their life partners based on their mates' scents, and they are also superior to the best technology when it comes to sniffing the flavour of fine wines. As a result, we relied on the physician's nose to detect the odour of infection.

Discussion and Conclusion

The ability of animals and people to identify infectious scents has been explored. The human nose is significantly inferior to that of a dog, with just 1/100th of its capability, yet the practical restrictions of a sniffing dog in a clinic or hospital appear to limit the work to the nose of the physician. As a result, we looked into human detection of infected patients' odours. Our goal was to find a previously unproven odour hypothesis that could be shared by practically all illnesses. We were unable to locate such a distinct odour. Stuffy/humid vapours were discovered at the infected patient's bedside in a modest number of cases (3/4 patients vs. s. 1 control). This could be owing to the stagnant air around the patients, or it could be due to continual fluid intake, IV fluid therapy, cold sponging, or the patient's sweat punctuating the body's fever response. Non-infectious diseased folks smelled better, as expected. They didn't have an illness agent that could cause an odour, and most of them were more socially active (since infections are contagious), necessitating the need to keep a nice aura around themselves.

However, we discovered that people who have been infected for a long time had more pleasant odours than those who have been infected for a short time. Humans, as social animals, are predisposed to appear with a pleasing odour in order to avoid being rejected or alienated by their society. It's no surprise that Sherlock Holmes guessed the lone victim based on his Hat's halitosis! Stress can disturb this tendency for self-preening in any infection. As a result, there may be unpleasant odours emanating from the sick patient in the early stages. The patient settles into a new equilibrium as the duration rises, and the initial stress may lessen over time in the hospital environment. During a fever, many patients are prohibited from washing. And the patient is unwashed when he arrives at the hospital. In the hospital, caregivers are urged and encouraged to clean the patient on a regular basis, and in some cases, the staff is responsible for his hygiene. As the patient's stay lengthens, this may help to reduce any unpleasant odours he produces.

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