## SHORT REPORTS

## Climacteric flushing in a man

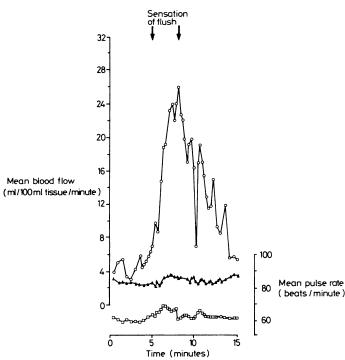
Hot flushes are accepted as the characteristic accompaniment of the menopause in women. Although reports of flushing in men after orchidectomy<sup>1 2</sup> or administration of a gonadotrophin releasing hormone agonist<sup>3</sup> suggest that testicular failure may also be associated with disturbed vascular activity, no objective study has been made of these attacks in men.

We report the first measurement of vascular changes during such an attack in a man who developed disabling hot flushes after orchidectomy.

### Case report

Bilateral orchidectomy was performed in a 60 year old man with disseminated carcinoma of the prostate. Soon after discharge from hospital he noted attacks of increased heat and sweating for the first time. These were attributed to a urinary infection but they continued unabated after a course of treatment with antibiotics; they sometimes occurred several times an hour during the day and woke him from sleep at night. Stress at work or an increase in room temperature often precipitated an attack.

Clinical examination showed the expected consequences of orchidectomy, soft smooth skin and loss of secondary sex hair. His hands and feet were damp. Endocrine testing showed low plasma testosterone concentrations and raised gonadotrophin concentrations as expected after orchidectomy. Circulatory studies performed during an attack showed a pronounced increase in hand flow which coincided with the onset of symptoms and which remained increased for several minutes after the flush had abated. An increase also occurred in forearm flow and in pulse rate but this was less pronounced than that in hand flow and was sustained for a shorter period of time. This response was notably similar to that in menopausal women during a hot flush<sup>4</sup> (figure).



Hand ( $\bigcirc$ ) and forearm ( $\blacktriangle$ ) blood flow and pulse rate ( $\square$ ) during a hot flush in a 60 year old man after orchidectomy.

Therapeutic options are limited. Androgens are contraindicated because of carcinomatosis and oestrogens because of their systemic effects in men. Clonidine, an alpha agonist which may alleviate menopausal flushing,<sup>5</sup> gave our patient some symptomatic relief. Calcium supplements were also prescribed in view of the increased calcium loss which occurs after gonadectomy as during the menopause.

#### Comment

The attacks of sweating and increased heat in our patient after orchidectomy and their aggravation by stress or by a rise in ambient temperature resemble the hot flushes experienced by women after the menopause. The similarity between the pattern of change in peripheral blood flow and pulse rate in our patient during an attack and those we have recorded during the menopausal hot flush in women<sup>4</sup> indicates further that the symptoms and vascular disturbance observed after orchidectomy may be considered as the male equivalent of the commonest complaint of women at the menopause. This report is the first objective study of the phenomenon in a man.

That an acute reduction in testicular secretion can evoke a response in men which is in all respects similar to that of the menopausal hot flush has obvious implications regarding the aetiology of the disturbance in women. It also raises the possibility that minor, less dramatic, manifestations of age related changes in testicular function may currently be undiagnosed and untreated.

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- <sup>3</sup> Linde R, Doelle GC, Alexander N, et al. Reversible inhibition of testicular steroidogenesis and spermatogenesis by a potent gonadotrophin-releasing hormone agonist in normal men: an approach toward the development of a male contraceptive. N Engl J Med 1981;305:663-7.
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COMPOUND SPIRIT OF LAVENDER. MATTHIAS—"Take of Lavender flowers one gallon, to which pour three gallons of the best spirits of wine, let them stand together in the sun six days, then distil them with an Alembick with this refrigeratory.

Take of the flowers of Sage, Rosemary, and Bettony, of each one handful; the flowers of Borrage, Bugloss, Lilies of the Valley, Cowslips, of each two handfuls: let the flowers be newly and seasonably gathered, being infused in one gallon of the best spirits of wine, and mingled with the foregoing spirit of Lavender flowers, adding the leaves of Bawm, Feather-few, and Orange tree fresh gathered; the flowers of Stoechas and Orange tree, lay berries, of each one ounce. After convenient digestion distil it again, after which add Citron pills the outward bark, Peony seed husked, of each six drams, cinnamon, Mace, Nutmegs, Cardamoms, Cubehs, yellow Sanders, of each half an ounce, Wood of Aloes one dram, the best Jujubes, the stones being taken out, half a pound, digest them six weeks, then strain it and filter it, and add to it prepared Pearls two drams, Emeralds prepared a scruple, Ambergrease, Musk, Saffron, of each half a scruple, red Roses dryed, red Sanders, of each half an ounce, yellow Sanders, Citron Pills, dryed, of each one dram. Let the species being tyed up in a rag, be hung into the aforementioned spirit."

I could wish the Apothecaries would desire to be certified.

1. Whether the gallon of Lavender flowers must be filled by heap, or by strike. 2. Next, whether the flowers must be pressed down in the measure or not. 3. How much must be drawn off in the first distillation. 4. Where they should get Orange leaves and flowers fresh gathered. 5. What they mean by convenient digestion. 6. Where you shall find Borrage, Bugloss, and Cowslips, flowering together, that so you may have them all fresh according to their prescript, the one flowering in the latter end of April, and beginning of May, the other in the end of June, and beginning of July. 7. If they can make a shift to make it, how, or which way the virtues of it will countervail the one half of the charge and cost, to leave the pains and trouble out. (Nicholas Culpeper (1616-54) The Complete Herbal, 1850.)