10-minute consultation

Paraesthesia

Badal Pal

A woman of 45 comes to you with tingling ("pins and needles") and numbness in the fingers and hands. It has been getting gradually worse for about three months.

What issues you should cover

- Establish which areas are affected. Ask which hand(s) and fingers are affected. Is there pain or stiffness in the shoulder or neck? Are the feet affected too?
- When do the symptoms occur, and are they worse at night?
- Do cold temperatures worsen the symptoms and make the fingers change colour (from initial pallor to blue and then red—the triphasic response of Raynaud's phenomenon).
- Does using a keyboard or mouse trigger or worsen the symptoms? Ask about machinery at work, particularly if it causes awkward wrist postures or vibration in the upper limb.
- Is she taking medicines that may cause paraesthesia, such as isoniazid or phenytoin, or those that can cause Raynaud's phenomenon, such as β blockers and oral contraceptives?

What you should do

- Briefly examine the upper limbs (and lower limbs, if also affected). Test for sensation in the affected areas using a fine gauge needle. If the symptoms are not present, ask the patient to draw an outline of the affected areas when they next occur.
- Cutaneous impairment in the distribution of the median nerve (the radial three and a half fingers) suggests carpal tunnel syndrome, which affects about 5% of the population. Wasting of the thenar muscle occurs in under 10% of cases.
- Mild carpal tunnel syndrome may not need surgical decompression. A single injection of corticosteroids (for example, 20 mg methylprednisolone) into or near the carpal tunnel may improve mild symptoms. Advise the patient to minimise time spent with flexed or extended wrists and to take frequent breaks. A wrist splint worn at night for a few weeks or during exacerbating activities may help.
- If the patient is pregnant or obese, reassure her that carpal tunnel syndrome will probably improve on losing weight.
- Ulnar nerve palsies are much less common. Look for numbness and tingling in the medial one and a half fingers, and examine for elbow deformities. Symptoms may be relieved by an elbow splint in extension; more severe cases may need nerve transplantation.
- Raynaud's phenomenon affects 5% of the population, 90% of whom are female and young, and is usually harmless. If this patient has uncomplicated Raynaud's, advise her to wear gloves in cold weather and to avoid tobacco; she may benefit from vasodilators, such as nifedipine 20 mg daily and increased slowly as necessary.
- Raynaud's disease (recent onset of the phenomenon in an older person) may be associated with rheumatoid arthritis, systemic lupus erythematosus, and scleroderma. Check for photosensitivity, rash, mouth ulceration, hair loss, and sclerodermatous changes in the hands. If you suspect and subsequently confirm connective tissue disease (see box), explain to the patient that she needs to see a specialist.
- If the skin goes white in the cold and then red on rewarming, and if the patient works with vibrating machinery, she may have hand-arm vibration syndrome or vibration white finger. She will need occupational health advice.
- If the diagnosis is not clear, or there are diffuse symptoms, consider doing a full neurological examination to rule out causes such as peripheral neuropathy and cervical myelopathy. If there seems to be a simple explanation such as pregnancy, obesity, or an adverse drug reaction, reassure the patient and discuss how to cope with the symptoms.

Phalen's investigations for paraesthesia in fingers and hand

If you suspect:
Carpal tunnel syndrome—Do Phalen's test (positive if holding the wrist in flexion for 20 seconds or more reproduces the patient's symptoms) and refer for nerve conduction tests
Ulnar nerve palsy—Refer for nerve conduction tests
Raynaud's phenomenon—Test blood for rheumatoid and antinuclear factors
Other systemic disease—Depending on the findings on neurological examination, consider checking for hypothyroidism (plasma thyroid stimulating hormone and thyroxine); diabetes (dipstick testing for glycosuria, random serum glucose, fasting serum glucose); rheumatoid arthritis and other connective tissue disorders (serum rheumatoid and antinuclear factors); alcohol related disease (liver function tests, full blood screen); renal disease (urine and blood biochemistry); vitamin deficiency (serum vitamin B-12 and folic acid); demyelinating disorders (magnetic resonance imaging)

Useful reading

Pal B, Morris J, Keenan J, Mangion P. Management of idiopathic carpal tunnel syndrome (ICTS): a survey of rheumatologists' practice and proposed guidelines. *Br J Rheumatol* 1997;36:1328-30.

Helliwell PS. The elbow, forearm, wrist and hand. *Baillieres Best Practice and Research in Clinical Rheumatology* 1999;13:311-28.

This is part of a series of occasional articles on common problems in primary care

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The *BMJ* welcomes contributions from general practitioners to the series

BMJ 2002;324:1501