Do it yourself cardioversion

J A McKnight, K Balnave, D B O'Keeffe

Sir George E Clark Metabolic Unit, Royal Victoria Hospital, Belfast BT12 6BA, Northern Ireland
J A McKnight, MRCP, *registrar*

Craigavon Area Hospital, Craigavon, County Armagh BT63 5QQ, Northern Ireland
K Balnave, MRCP, *consultant physician*

Belfast City Hospital, Belfast BT9 7AB
D B O'Keeffe, MRCP, *consultant physician*

Correspondence to: Dr McKnight.

Medical history taking sometimes elicits unusual and interesting stories. Patients' perceptions and managements of their problems before they seek medical attention can produce some surprises. Unusual remedies that work may later be explained by accepted medical logic. This is certainly true of the case reported here.

Case report

A 62 year old farmer first came to medical attention at Craigavon Area Hospital in 1982. The cardiac ambulance had been asked to attend him as he had become unconscious in his front garden. Electrocardiography confirmed a supraventricular tachycardia. He was hypotensive and was admitted for further investigation. During the next few days his interesting history emerged.

He had first noticed palpitations in 1954. During a typical attack he would notice his heart racing and would feel dizzy. He would not be short of breath. Initially the attacks did not last long. During the next few years their duration increased to about 10 hours. He thought that they were precipitated by excitement, trauma to his chest, or a shock and decided that a shock or trauma would also stop them.

Initial treatment consisted of his jumping off a barrel in his farmyard and thumping his feet hard on the ground when landing. This worked well for a few years. If this failed he used to climb a ladder because this was higher, and jump. Alternative treatment was to fire a 12 bore shotgun as he found that this might stop his palpitation.

Second line treatment was a little more invasive. He had a cold water tank on the farm. He was able to stop his palpitation by taking off his clothes and jumping in. As a cattle farmer third line treatment was obvious: grasping his six volt electric cattle fence was very effective. It worked best if he was wearing his hobnailed boots. If he was wearing rubber boots the shock was administered by grasping the fence in one hand and sticking a finger of the other hand into the ground.

The medical profession had difficulty managing his palpitations. During 1982-4 he received a wide range of drugs, but these either failed to control his symptoms or caused side effects. He required admission for treatment on eight occasions. Outpatient notes stated that a Valsalva manoeuvre or squatting relieved symptoms.

He was referred to Belfast City Hospital for electrophysiological studies. The final diagnosis was of a reciprocating junctional tachycardia with retrograde conduction along a septal or paranodal accessory pathway. This was treated with a right ventricular pacemaker (Telectronics PASAR 4172) that recognised ventricular rates of greater than 155 beats/minute and emitted two right ventricular stimuli. Subsequently he was admitted on only one occasion for treatment of palpitations.

Comment

Short episodes of junctional tachycardia without distress do not require treatment. Standard treatment in more severe cases is to increase vagal tone.[1] Methods used include carotid sinus massage, the Valsalva manoeuvre, the diving reflex, and eyeball pressure. If these treatments fail intravenous verapamil is the best treatment if there are no contraindications. If clinical circumstances dictate immediate restoration of a slower rhythm the treatment is synchronised direct current cardioversion.

A Valsalva manoeuvre is probably the mechanism by which our patient initially reverted his rhythm when jumping from a height or firing a shotgun. He brought his electric fence to the hospital and used it to stop a tachycardia. Electrocardiography showed that the fast rhythm persisted for three beats after the shock, implying that the mechanism of action was probably stimulation of the vagus. Our patient's use of the diving reflex and his do it yourself "electric cardioversion" are, however, a little extreme for standard medical teaching.

1 Metha D, Ward DE, Wafa S, Camm AJ. Relative efficacy of various physical manoeuvres in the termination of junctional tachycardia. *Lancet* 1988;i: 1181-5.

Periareolar pilonidal abscesses in a hairdresser

M X Gannon, M C Crowson, J W L Fielding

Department of Surgery, Queen Elizabeth Hospital, Birmingham B15 2TH
M X Gannon, FRCS, *registrar in surgery*
M C Crowson, FRCS, *senior registrar in surgery*
J W L Fielding, FRCS, *consultant surgeon*

Correspondence to: Mr Gannon.

Periareolar inflammation and abscesses can be difficult clinical problems.[1] Although in some cases they respond to antibiotics, surgery is often necessary but is associated with a high incidence of postoperative infection, recurrence, and mamillary fistulas. The aetiology of periareolar inflammation is often unclear, though it occurs in association with periductal mastitis and duct ectasia. We report a case of recurrent bilateral periareolar abscesses.

Case report

A 21 year old woman who had been a women's hairdresser for some years and had recently begun to cut men's hair presented with a three month history of periareolar inflammation that was resistant to treatment with antibiotics. She had a palpable mass at the edge of her areola and a partially inverted nipple. Biopsy showed periductal mastitis. Soon afterwards she presented with periareolar inflammation in her other breast with intermittent purulent discharge. When indicated clinically an abscess was drained and the cavity packed. No organisms were cultured from the drained material. Over the next three months she had frequent abscesses on both breasts requiring surgical drainage.

At this stage she gave a history of having to remove short hairs protruding from her nipples at the end of a working day. When the next abscess formed a search for hair produced nothing, but a clump of short hairs was found in the cavity of the subsequent abscess. With the next recurrence digital pressure from within the cavity of the abscess extruded hair through the mammary ducts (figure). By this technique hair was cleared from the ducts and recurrence of abscesses stopped. Histological examination of the wall of the cavity showed birefringent foreign material that was identified as hair.

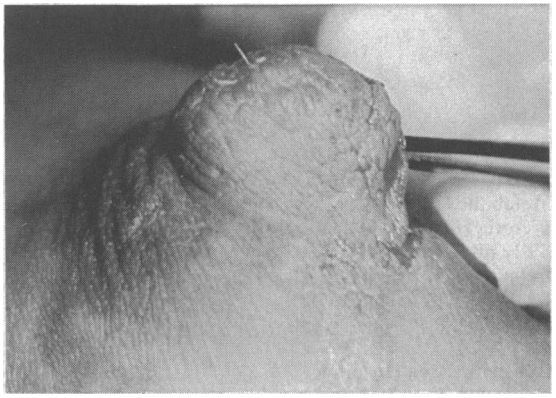
Comment

Pilonidal disease was first described in 1847. Although it is common in the sacrococcygeal region of the natal cleft, it is a ubiquitous disorder that has been described in the perineum, the suprapubic region, the axilla, the umbilicus, and the interdigital clefts of barbers' hands.[2] Pilonidal disease of the areola is rare. There is a report of a pilonidal sinus caused by a dog hair in a canine beautician[3] and a similar report in roustabouts (sheepshearers' assistants, who carry shorn wool close to their breast), which also mentions two cases of pilonidal breast disease in hairdressers.[4]

Interestingly, our patient had recently begun to cut men's hair. This is in keeping with the observations of Currie *et al*, who found interdigital sinuses in men's but not women's hairdressers.[5]

Our patient should be able to prevent recurrence by wearing closely woven nylon overalls that prevent the passage of hair through clothing. Failing that the roustabouts' technique of using wide strips of sticking plaster to cover their nipples might be effective.

In this report the history and clinical finding of hair in the mammary ducts rather than in the cavities of the abscess indicated that the abscesses were pilonidal. Despite the clear history, however, the condition was extremely difficult to diagnose, and pilonidal disease may cause periareolar inflammation and abscesses more frequently than has been recognised.



Nipple showing protruding hairs

1 Walker JC, Sandison AT. Mammary duct ectasia: a clinical study. *B r J Surg* 1964;**51**:350-5.
2 Goligher JC. *Surgery of the anus, rectum and colon.* 5th ed. London: Baillière Tindall, 1984:221-35.
3 Banerjee A. Pilonidal sinus of nipple in a canine beautician. *Br Med J* 1985;**291**:1787.
4 Bowers PW. Roustabouts and barbers breasts. *Clin Exp Dermatol* 1982;**7**:445-8.
5 Currie AR, Gibson T, Goodall AL. Interdigital sinuses of barbers hands. *Br J Surg* 1953;**41**:278-86.

Pacemaker twiddler: A twist in the tail?

M Been, P G G Darke

Department of Medicine, Royal Infirmary, Edinburgh EH3 9YW
M Been, MRCP, *senior registrar*

Royal (Dick) School of Veterinary Studies, Small Animal Clinic, Edinburgh EH9 1QH
P G G Darke, MRCVS, *director*

Correspondence to: Dr M Been, Department of Cardiology, Freeman Hospital, Newcastle upon Tyne NE7 7DN.

In patients with degeneration of the cardiac conduction system permanent pacing relieves symptoms, prevents syncope, and prolongs life. An uncommon complication is the pacemaker "twiddler" syndrome. First described by Bayliss *et al*,[1] it is thought to occur when an implanted pulse generator is rotated in either the subpectoral[2] or abdominal position,[3] resulting in traction on the pacing lead. Failure of the pacing system occurs if the lead is displaced or fractured.

Case report

A previously active middle aged male patient of German descent was referred to us because of recurrent syncopal attacks. Initial examination showed a heart rate of 70-100 beats/minute, but an electrocardiogram showed periods of sinus bradycardia and second degree atrioventricular block. A permanent programmable ventricular pacing system was therefore inserted. A tined ventricular lead was passed to the apex of the right ventricle through the jugular vein,[4] and a pulse generator was inserted. An electrocardiogram taken after the operation showed that the pacer was functioning normally, and a lateral chext *x* ray film confirmed that the lead was in a good position (figure (left)). The response was dramatic, and he returned to normal activities including running and hunting.

Six months later repeated syncopal attacks associated with bradycardia suddenly recurred. An electrocardiogram showed atrial fibrillation with complete heart block. Regular pacing spikes were visible, but there was no ventricular capture, indicating failure of both sensing and pacing. A chest *x* ray film showed considerable coiling of the pacing lead with displacement of the tip into the right atrium (figure (right)).

Lateral chext x ray films. Left: confirming satisfactory position of pacing lead. Right: showing coiling and displacement of pacing lead six months later

Comment

Late displacement of the ventricular lead is now uncommon because the use of tined pacing leads allows growth of tissue around the tip. In this case there must have been considerable traction as displacement occurred six months after the lead was inserted. Previous reports of the pacemaker twiddler syndrome have usually described cases in which simple traction without obvious coiling resulted in displacement of the lead,[1,2] and one described extreme intracardiac coiling[5] without displacement.

Our rather unusual case may offer insight into the mechanism in at least some cases of the twiddler syndrome. The second *x* ray film showed that even though the lead was displaced there was considerable coiling, which had effectively shortened the lead (figure (right)). Probably repeated rotation of the pulse generator over the six months had resulted in even more coiling, and this had provided enough continual traction on the pacing tip eventually to cause displacement.