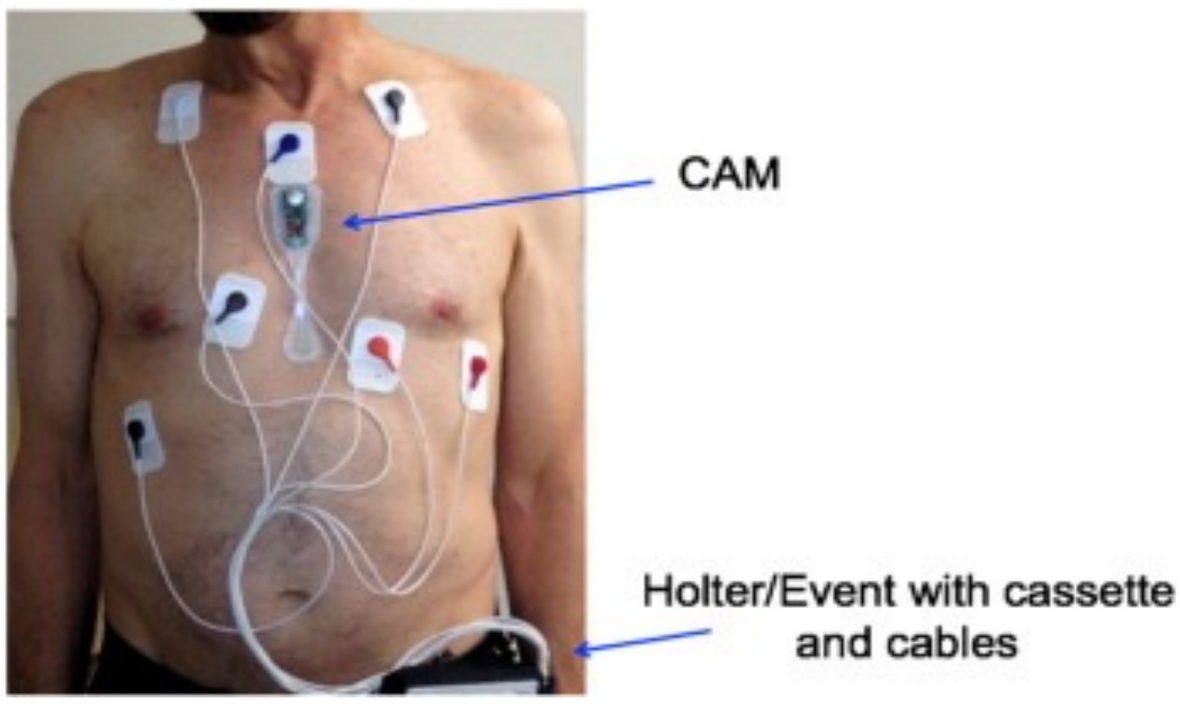
DISCRETELY DOES IT

– A NEW CARDIAC MONITORING PATHWAY POST-STROKE

M Barber | K Brennan | A Bruce | S Horan | L McCann | P. Mooney | L Neubeck | M Lennon

Background and Aims

Identifying Paroxysmal Atrial Fibrillation (PAF) post ischaemic stroke or TIA can be challenging. Guidelines recommend that patients with possible thromboembolic stroke have ECG monitoring conducted for a minimum of 72 hours typically using a Holter monitor fitted in hospital/ outpatient clinic. An alternative clinical service pathway was proposed using 2 consecutive single use 7-day ECG monitors (Bardy DXTM) that could be applied by stroke nurses. This study aimed to determine the effects of a potential new pathway for diagnostic monitoring for PAF in a population who have survived a stroke or TIA.



Methods

This was a mixed methods study incorporating qualitative and quantitative data sources. NHS Research Ethics Committee and local Research and Development Department permissions were obtained. Participants were patients with recent ischaemic stroke or TIA. At the time of involvement they were given a patient information sheet and asked whether they would later take part in qualitative interviews. Qualitative data were analysed thematically.

'Aye, well the chap that did the fitting took it off, but he also had some fluid or other that he dabbed on it and actually came away not too bad. But when I did it, I had an awful time, I had to get a knife, I couldn't pull it because my skin was coming out, right and I didn't want to [cause] myself any damage, so I got a fileting knife from the kitchen and Vaseline and just slowly just sat and worked it down. It was rather painful coming off, that was the second one.' (Pt 009).

'Aye, as I say you forgot it was there, but again that's the only thing I would say is if you leaned against something you were conscious of especially the button being in the front'(Pt001).

Well it was pretty unobtrusive really, most of the time you forgot it was there' (Pt 001).

'I don't even know it's there dear to tell you the truth.' (Pt 005).

'Yeah, it was quite comfortable. You didn't know you had it on' (Pt007).

'It was completely painless, I didn't even notice it, even in the shower and the only time it ever became a problem was when I was drying myself, because you forget it's there.' (Pt009).

Results

Between July and October 2019, Sixty-four patients were provided with devices which were worn for a mean of 12.65 days (range 5-14). Four (6%) new cases of PAF were detected by the device. One of these had already been noted by clinical staff on pulse palpation. All were subsequently anticoagulated.

Reasons for not fulfilling a full 14-day period of monitoring included skin irritation from the device, device not sticking, device failure and patient refusal. Some participants noted skin tolerance issues (n=9) which included the device falling off (n=2, one of whom reapplied with skin tape); skin redness (n=4) and itch (n=1) delicate skin (n=1); broken skin (n-1). The one individual who was noted to have broken skin was also noted to have an allergy to nickel, the device does not include nickel, however the skin preparation was noted to include nickel, but this was not noted until further investigation by stroke liaison nurses.

Eight patients and one carer were interviewed about their experience. Overall, they found the device to be non-obtrusive. Those with prior experience of Holter monitoring commented on how much more comfortable they found the new single lead ECG.

Conclusions

Patients who have survived a stroke found monitoring with a discreet single lead ECG to be convenient. Scaleability from the patient perspective will depend on addressing issues of skin irritation/ comfort.

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Contact information

- University Department of Stroke Care, NHS Lanarkshire
- Email: Mark.Barber@lanarkshire.scot.nhs.uk