New tool for detecting aneurysm risk in ER headache patients

Identifying headache patients who are at risk of aneurysms can be difficult as they often seem otherwise well. In view of this, researchers at The Ottawa Hospital (Ontario) have developed a new tool designed to help emergency departments identify high-risk patients and improve survival rates. The tool is called The Ottawa Subarachnoid Haemorrhage Rule and the researchers hope it will be widely adopted in emergency departments in order to cut wait times and avoid unnecessary testing for low-risk patients.

A bleeding brain aneurysm, referred to medically as a subarachnoid hemorrhage, can cause a sudden headache.

"Although rare, accounting for only 1%-3% of headaches, these brain aneurysms are deadly," says Dr. Jeffrey Perry, an emergency physician with The Ottawa Hospital and the University of Ottawa, Ottawa, Ontario. "Almost half of all patients with this condition die and about 2/5 of survivors have permanent neurological deficits. Patients diagnosed when they are alert and with only a headache have much better outcomes, but can be challenging to diagnose as they often look relatively well."

The researchers conducted a study involving 1,153 alert adult patients with acute sudden onset headache admitted to six university-affiliated hospitals in Canada over four years (from January 2010 to 2014). The study's findings validate earlier published research that initially proposed the Ottawa Subarachnoid Haemorrhage Rule.

Dr. Perry explains the importance of conducting the current study – which is reported in Canadian Medical Association Journal – for validating the new clinical decision tool.

"Before any clinical decision rule can be used safely, it must be validated in new patients to ensure that the derived 'rule' did not come to be by chance, and that it is truly safe," according to Dr. Perry. "This is especially true with a potentially life-threatening condition such as subarachnoid haemorrhage."

With the adoption of the new rule, the doctor estimates that the tool could save 25 lives in Ontario each year.

The Ottawa Hospital is also known for creating The Ottawa Rules, decision tools that are used in emergency departments around the world to identify ankle, knee and spine fractures.

Source: Canadian Medical Association Journal
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