Information for patients from JNNP

Clue to cause of laughter and tears after stroke

Doctors have identified a possible cause for a distressing condition that some people get after having a stroke. They think that sudden uncontrollable laughter or crying may be caused by bleeding from tiny blood vessels in the brain.

What do we know already?
As many as half of the people who have a stroke get a condition called 'emotional lability' afterwards. It means that you have episodes of laughing or crying uncontrollably, often without anything in particular starting it off. This can be distressing. People feel embarrassed about it and may worry that they're going mad. Some people refuse to go out, because they're so worried about it happening. It usually starts within weeks of having a stroke, and people can get episodes during anything from a week to several years after the stroke.
One theory is that it's caused by minor damage to certain areas of the brain. In a new study, doctors did brain scans of patients who'd had a stroke, and asked them about emotional lability symptoms like uncontrollable laughter or crying. They looked to see whether signs of minor bleeds (called microbleeds) in particular parts of the brain were more common in people with emotional lability.

What does the new study say?
People with emotional lability were more likely to have signs of microbleeds in a particular part of the brain, called the thalamus. That backs up the theory that these bleeds may be part of the cause of uncontrollable laughter or crying.
But it's not likely to be the only cause. 16 in 100 people with emotional lability had microbleeds in the thalamus, compared with 6 in 100 people who didn't have emotional lability. So, many people with this condition didn't have this type of bleeding, and some people without emotional lability did have bleeding.

How reliable are the findings?
The study was carried out carefully, but it was quite small (only 519 people) and people with more severe stroke symptoms were not included. The
researchers say that more study is needed before we can say whether microbleeds in the thalamus part of the brain are a cause of emotional lability.

**Where does the study come from?**
The study was carried out by researchers at the University of Hong Kong, China.

**What does this mean for me?**
If you or someone you care for experiences these symptoms, it may be a relief to know that they’re quite common. This study suggests they are related to a physical cause in the brain, not a psychological problem. You may find this reassuring.

**What should I do now?**
There’s no need to take any action as a result of this study. If you are concerned about symptoms like uncontrollable laughing or crying, either for yourself or someone you’re caring for, speak to your doctor. Some people find antidepressant medicines help to keep the symptoms under control.

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This summary was prepared by the staff of Best Health, BMJ Group’s patient information service. This information does not replace medical advice. If you have a medical problem please see your doctor.