

# SCIENCE NEWS

## This Week

### Carotid Overhaul

#### Stents and surgery go neck and neck

For 40 years, doctors have cleared blockages of the carotid arteries in the neck, which supply blood to the head, by surgically removing plaque from the vessels. The technique contrasts with a common way for treating artery obstructions around the heart. Once known mainly as balloon angioplasty, the latter procedure involves snaking an inflatable catheter through a small incision to open the vessel from the inside and then inserting a mesh cylinder called a stent to keep the artery open. Today, doctors commonly call that combination of procedures "stenting."

In the past decade, some doctors have tested stenting on blocked carotids. A direct comparison of stenting and plaque-removing surgery, called endarterectomy, now finds that the two approaches benefit patients about equally, with a slight edge going to stents, scientists report in the Oct. 7 *New England Journal of Medicine*.

A carotid artery blocked by plaque is a tragedy waiting to happen. When these plaques rupture, pieces can dam up blood vessels of the brain and cause strokes. To prevent such strokes, roughly 140,000 people undergo carotid endarterectomy each year in the United States (*SN*: 9/2/00, p. 150).

In the new study, scientists tracked 310 people with significant carotid blockages who had been randomly assigned to get either an endarterectomy or a stent. All were high-risk patients who had an obstruction plus a history of heart disease, previous carotid surgery to remove a blockage, or other carotid artery problems or were older than 80.

During the year following the procedure, 19 people getting endarterectomy and 11 people getting stents died, a difference that could be due to chance. Patients undergoing stenting had no major strokes on the side of the brain supplied by the repaired artery, whereas people getting endarterec-

tomies had five major strokes in the side of the brain supplied by the repaired artery. Moreover, the treated carotid artery became blocked again within a year in six of the endarterectomy patients but in only one of the patients getting a stent.

"It's pretty clear that, in people at high risk of stroke, [carotid stenting] will become the procedure of choice," says study coauthor Jay S. Yadav, a cardiologist at the Cleveland Clinic Foundation. On the basis of this and other studies, the Food and Drug Administration last month approved carotid stenting for such patients.

Curiously, 12 people getting an endarterectomy had subsequent heart attacks, compared with 4 in the group getting stents, possibly because of greater physical stress during endarterectomy, comments Jack V. Tu, an internist at the University of Toronto.

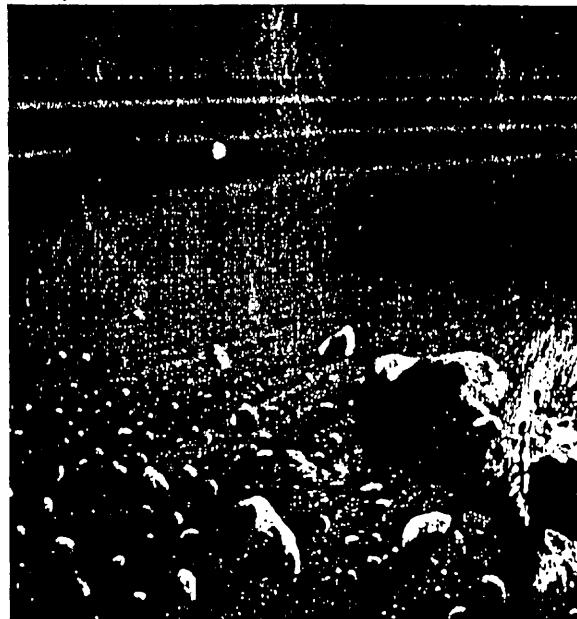
Although stents have proved valuable in opening coronary arteries, the push to use them in the carotid has been slow, partly because endarterectomy is a proved approach, Tu says. On the other hand, "stenting has a lot of intuitive appeal to physicians and patients because it's less invasive," he says. —N. SEPPA

**QUOTE**  
Stenting has a lot of intuitive appeal to physicians and patients because it's less invasive.  
—Jack V. Tu, University of Toronto

### Planet Signs?

#### Sifting a dusty disk

Twenty years ago, astronomers peering at the young star Beta Pictoris got their first glimpse of a disk of dusty debris—the sign that planets, asteroids, and comets are



**ROCKY VIEW** Depiction of a possible planet (upper left) flaring debris disk surrounding the star Beta Pictoris (upper right).

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