Carotid Endarterectomy Complicated by Vein Patch Rupture

To the Editor: The article by Scott et al. "Carotid Endarterectomy Complicated by Vein Patch Rupture," (1) is appropriate and documents one of the risks of using a vein patch. Of interest to me, however, was the lack of discussion by either the authors or the two commentators about the appropriateness of the routine use of a vein patch graft. Carotid endarterectomy is perhaps the single most dramatic operation where technical considerations have a direct bearing on the usefulness of the procedure (2).

I agree completely with the comments by Dr. Smith that a patch may well be warranted in recurrent stenosis or radiation angiopathy. I have used a venous patch on multiple occasions in this setting. Despite the proponents of routine vein patch led by one of our most distinguished neurosurgical leaders, Dr. Sundt, I remain unconvinced of its usefulness in every endarterectomy.

The drawbacks of a second incision, a double suture line, patch rupture, and aneurysm formation are no small consideration when the potential advantages of a vein patch graft in improving lumen size and hemodynamic stress at the bifurcation are considered. The routine use of the operating microscope leads to an enlarged lumen of the carotid bifurcation, compared with the common carotid artery below and with the internal carotid artery above where the plaque was removed without the use of a vein patch. By eliminating the uncommon, but potentially devastating, complications of a vein patch, I believe the overall morbidity and mortality of the operative intervention can be reduced. The patency rate of the endarterectomies performed under the operating microscope compare favorably with the endarterectomies with vein patches.

The very tight suture line performed under the microscope leads to the routine enlargement of the endarterectomy site, thus achieving the major objective of a saphenous vein patch graft without its additional risks.

I have been intrigued by the general resistance of the neurosurgical community to the use of the operating microscope for routine endarterectomy. I wonder how many of us would be satisfied to have a disc operation without the use of the magnification and illumination provided by the microscope. Why then is the operating microscope shunned for an operation where the risks and the technical precision are of even greater importance? If, indeed, the same or better results can be achieved by using magnification and thus avoiding the small but additional risk of using the vein patch graft, this should be reason enough.

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REFERENCES: (1,2)


Multiple Cerebral Hydatid Disease: Case Report with Magnetic Resonance Imaging Study

To the Editor: We read with interest the article by Nurchi et al., Multiple cerebral hydatid disease: Case report with magnetic resonance imaging study (17).

Cerebral hydatidosis is reported very rarely in Western neurosurgical literature, presumably because the worldwide distribution of the parasite is mainly limited to rural and low-developed areas. Shepherd, sheep, and dog are generally estimated as the interconnected factors in maintaining the life cycle of the parasite. Yet endemic regions comprise the entire Mediterranean coast (Morocco, Algeria, Tunisia, Libya, Egypt, Israel, Lebanon, Cyprus, Turkey, Greece, Yugoslavia, Italy, France, Spain); Great Britain, Ireland, Southern and Central Soviet Republics, Bulgaria, Southern and Central Asia (China, Mongolia, India, Iran, Kuwait, Iraq, Saudi Arabia, Syria, Philippines, North Vietnam, Southern Japan); Southern and Central Africa (Tanzania, Nigeria, Zimbabwe, Kenya, South Africa); South Australia, Tasmania, New Zealand, North America (Canada, Alaska, Iceland, Utah, California); and the Southern half of South America (Argentina, Paraguay, Chile, Uruguay, Brazil, Falkland Islands).

At least two geographic strains exist with different host ranges. The northern or sylvatic strain involves canids (wolves, foxes, hyenas, jackals, wild cats, panthers, jaguars, leopards, bears, dingo) and wild ungulates (bison, caribou, moose, reindeer, giraffes, zebras, hippopotomus, vicuna, antelopes, elephants, kangaroo). The pastoral strain, with a high risk of infection in man, develops in dogs as the definitive hosts. Domestic reservoirs and intermediate hosts are sheep, horses, buffalo, camels, goats, pigs, donkeys, and cattle (1,4-7,9,11,12,16,20,22).

Nearly half a billion people live in areas at risk for infection by Echinococcus granulosus, with an incidence of 0.01 to 2% infection with hydatid cysts in the human population (3,6,8,10,14-16,19,21). Most hydatid cysts in man are acquired in childhood (8), and children are frequently treated by surgery (2,23). Recently, in a survey on cerebral hydatidosis in children, we have assumed, on the basis of the growth rate of hydatid cysts of between 1 and 4 cm per year, that infestation occurs in the first months of life through feeding with contaminated animals' milk (13). It is natural that in rural areas mothers frequently rear infants with fresh unboiled animals' milk. This widespread and seemingly wholesome practice may facilitate the transmission of the pastoral strain. Medical awareness and international educational programs, including the pasteurizing or simple boiling of milk, in our opinion, could prevent infestation in children.
REFERENCES: (1-23)

13. Lunardi P, Missori P, Di Lorenzo N, Fortuna