Primary fibrochondroma in the descending aorta

Ming-Yuan Liu, MD, PhD, a,b Yang Jiao, MD, b and Wei Li, MD, PhD b

From the aDepartment of Vascular Surgery, Beijing Friendship Hospital Affiliated to Capital University of Medical Sciences, Beijing, China; and bDepartment of Vascular Surgery, Peking University People’s Hospital, Beijing, China.

Disclosures: Authors have nothing to disclose with regard to commercial support.
Received for publication March 9, 2019; revisions received March 24, 2019; accepted for publication April 1, 2019; available ahead of print June 4, 2019.
Address for reprints: Wei Li, MD, PhD, Department of Vascular Surgery, Peking University People’s Hospital, Beijing, 100044, China (E-mail: mailtoweii@qq.com).
J Thorac Cardiovasc Surg 2020;159:e287-8
0022-5223/$36.00
Copyright © 2019 Published by Elsevier Inc. on behalf of The American Association for Thoracic Surgery
https://doi.org/10.1016/j.jtcvs.2019.04.011

A 29-year-old woman presented to Peking University People’s Hospital with a 5-month history of left lower limb numbness and swelling, and progressive hypertension (160/100 mm Hg) but without any sign of the immune disease or tumor. Computed tomography of the thorax and abdomen revealed a well-defined aortic space-occupying lesion at the level of the 12 thoracic vertebrae to the level of the birenal arteries (Figure 1, A). A left thoracoabdominal incision via retroperitoneal access was performed. The aortic mass was hard in shape and sprouted from the posterior wall of the aorta with a small pedicle, which had been entirely resected (Figure 1, B). Microscopically, the mass was aortic chondroma and consisted of chondrocytes in a nodular distribution (Figure 1, C). Further immunohistochemistry stain showed positive cartilage biomarkers, and the pathologic diagnosis was fibroenchondroma. However, 15 months later, she underwent the second operation for a neo-formed fibroenchondroma at the previous location, but this time the mass was smaller but with a “fish-flesh” soft appearance, which originated from the anterior wall of the aorta (Figure 1, D). Intraoperatively, we observed the fibroenchondroma had invaded the orginal segment of the celiac artery. The fibroenchondroma was then fully resected after the visceral arteries were under control. Note that the fibroenchondroma was hard in shape and sprouted from the posterior wall of the aorta with a small pedicle. During the second operation, we found the neo-formed fibroenchondroma was “fish-flesh” soft in appearance and originated from the anterior wall of the aorta. It was fragile and easily crushed into pieces. The fibroenchondroma and neoplasm intima that had invaded to the celiac artery were fully resected with tumor margin intima excision. The intima was removed with the assistance of vascular shunt for maintaining the patency of the visceral artery. Video available at: https://www.jtcvs.org/article/S0022-5223(19)30904-3/fulltext.

This case indicated that the ability of the vascular smooth muscle cells differentiating into a cartilage tissue, which was not justified previously. At follow-up 8 months after...
the second surgery, she was free of fibroenchondroma and no recurrence was observed. Our case suggests that full resection is critical for an aortic chondroma.

References