A 76-year-old woman presented at the cardiology outpatient clinic with dizziness. She had stable coronary artery disease and a left anterior coronary artery stent had been implanted 6 months earlier. She was on aspirin, clopidogrel, metoprolol, and rosvastatin therapy. The physical examination was normal, with the exception of a bruit on the left carotid artery and a palpable thyroid gland. An electrocardiogram showed a normal sinus rhythm. An echocardiography examination demonstrated normal cardiac and valvular functions. Her blood chemistry and hemogram analysis were normal. Carotid artery computed tomography angiography then revealed a bovine-type aortic arch, a retrosternal goiter, and at the midline, medially displaced, kinked, and tortuous internal carotid arteries as well as lateral displacement of the common carotid arteries (Figure A-D). Anatomical variations of the extra cranial internal carotid arteries occur in approximately 5% of the general population; however, kissing carotids is very rare. To our knowledge, this is the first case report in the literature describing the combination of a bovine aortic arch, kissing carotid arteries, and a retrosternal goiter. It is important to keep in mind that a bruit over the carotid artery is not always associated with carotid obstruction. Increased carotid flow or turbulence due to either tortuosity or roughening of the vessel by an atherosclerotic plaque may also cause carotid bruit.