We report of a patient with an inflammatory infrarenal aortic aneurysm with a diameter of 6.5 cm, a middle mesenteric artery (MMA) arising from the aneurysm, and a review of the literature. The patient underwent successful surgical treatment by using an interposition tube graft (Dacron graft, 18 mm) with replantation of the MMA. Reports about a MMA arising separately from the aorta are extremely rare, especially in combination with an infrarenal aortic aneurysm. In our case, it arose from the anterior aspect of the abdominal aorta, 6 cm below the superior mesenteric artery (SMA) and 1.2 cm above the inferior mesenteric artery (IMA). The MMA gave branches to the ileum and distal jejunum and supplied the iliocolic and middle colic artery branch as well as the left colic artery branch. It is of extreme clinical importance for the surgical procedure to have a detailed knowledge of the different anatomical variations and anomalies.