Contraceptive Implant Embolism Into the Pulmonary Artery

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A 36-year-old woman with a subdermal contraceptive implant Implanon (etonogestrel) (Merck Inc, Whitehouse Station, NJ), placed 7 months previously, requested device removal because of unwanted side effects from unopposed progesterone. The device could not be palpated in the arm. Upper arm ultrasonography and roentgenography were unsuccessful in locating the device. After an episode of chest pain, a chest roentgenogram revealed a foreign body projected over the left lower lobe pulmonary artery (Fig 1, arrow). Pulmonary computed tomography angiography confirmed that the device was lodged in a subsegmental branch of the left lower lobe pulmonary artery (Fig 2, arrow). No lung changes were present to suggest infarction.

Implanon is a single-rod progestogen-only implant recommended for the prevention of unwanted pregnancy. The device is placed in the subdermal connective tissue in the inner aspect of the arm 8 to 10 cm above the elbow.

Side effects mainly relate to the unwanted effects of the active ingredient—etonogestrel. Device migration is also described and is usually on the order of a few centimeters [1]. Embolization into the pulmonary arterial circulation device has not been described. Possible explanations include inadvertent placement into the basilic vein during the procedure or insertion into the deeper loose areolar tissue, which when close to the mobile elbow joint may predispose to migration. We feel retrieval should be feasible with an endovascular or open procedure. Options of retrieval were discussed, but after improvement in symptoms (despite the hormone profile suggesting that the device was still active), the patient opted against further intervention. This case highlights a rare but potentially life-threatening complication of Implanon insertion.

Reference