Vascellari et al., 2004


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"The intact microchip was found completely embedded within the mass . . . [and] a diagnosis of low-grade liposarcoma was made." (p.188)

"Veterinary surgeons are . . . encouraged to check the microchips that have been implanted in pets at least annually, such as when they come in for vaccinations, and report any adverse reaction." (p. 190)

Summary of Study

An 11-year-old dog developed a cancerous tumor (liposarcoma) around a microchip that had been implanted approximately 19 months earlier. The tumor was removed and the dog recovered.

Overview

In April 2000, a male mixed-breed dog was implanted with a microchip for identification purposes. In November 2001 (19 months later) the dog’s owner detected a firm, painless lump at the implant site measuring 10 x 6 cm (approximately 4 x 2.5 inches). The lump was examined by a veterinarian who determined that the microchip was completely embedded within the mass.

In April 2003, the tumor was surgically removed under general anesthesia. Upon microscopic examination, it was identified as a malignant liposarcoma, an aggressive and invasive type of cancer that can metastasize to the lungs, liver, and bone. The researchers note that liposarcoma is uncommon in dogs.

Prior to the surgery, the dog had shown no visible signs of cancer other than the unusual lump. Blood tests run on the dog, including a complete pre-operative blood count and serum biochemistry analysis,
did not detect that the mass was malignant. Thoracic radiographs (chest X-rays) were also normal. Had there not been a microscopic evaluation of the unusual growth, the cancer might not have been detected.

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**Study Details**

- The evaluation was conducted by Dr. Marta Vascellari and Franco Mutinelli of the Instituto Zooprofilattico Sperimentale delle Venezie, Histopathology Department, in Legnaro, Italy, together with veterinary surgeons Romina Cossettini and Emanuela Altinier of Porcia, Italy.

- The microchip was manufactured by Digital Angel, the parent company of the VeriChip Corporation. It is distributed by Merial under the Indexel® brand. Researchers state that the implant "consists of a sealed glass capsule containing a chip and a coil . . . [and is] equipped with an anti-migrational capsule, located in the anterior part of the microchip."