Fungi are widespread in the environment and not usually harmful to healthy animals. However, the number of mycosis cases has recently increased in animals in which the immunity has been decreased by antineoplastic drugs or immunosuppressive drugs. A report has indicated the zoonotic potential of some animal fungi around the world [9]. Sporotrichosis is caused by the dimorphic fungus, *Sporothrix schenckii*. There have been many reports of infections in horses, cats and humans [2, 5, 7]. *Sporothrix schenckii* is isolated from soils, sphagnum moss and tree bark. It infects animals and humans through a puncture wound. Sporotrichosis can be divided into three clinical forms: cutaneo-lymphatic, cutaneous, and disseminated [3]. In Japan there have been many cases of sporotrichosis in humans, but only one case report of feline sporotrichosis [8].

This case was a 2-year-old male mongrel house cat with free outdoor access, weighing 5.4 kg, which had been treated for skin abscesses. This cat was referred to Gifu University Teaching Animal Hospital with a subcutaneous nodule on the right hind leg, which had gradual growth. The cat was in good general condition. A nodule was recognized near the main pad on the right hind leg. We excised it surgically under general anesthesia. The nodule, 18 × 15 × 6 mm in size, was brown and smooth, and was well-demarcated (Fig. 1). The histopathological finding indicated many yeast-like cells with granulomatous inflammation (Fig. 2), so culture and molecular examinations were performed for the biopsy material from the nodule. As a result, the isolate was identified as *S. schenckii*. And the case was diagnosed as sporotrichosis by *S. schenckii*-specific polymerase chain reaction analyses, too [6].

Nine days after the operation, we recognized another nodule on the right popliteal lymph node. We excised it surgically, but no fungi were detected in it. According to the diagnosis of sporotrichosis, 34 days after the operation, the cat was administered itraconazole (15 mg/kg once daily, per os) to avoid recurrences. After 50 postoperative days, we also recognized another nodule on the left popliteal lymph node, and performed a fine needle aspiration biopsy because there was a possibility of metastasis. However it was not diagnosed. At 69 days postoperation, the left popliteal lymph node showed a slight decrease in size, but the treatment was continued for one more month. After 2 months’ oral administration of itraconazole, the left popliteal lymph node was not recognized, and the general condition showed improvement, so the itraconazole was discontinued. Now, one year after the operation, no recurrences have been observed.

During postoperative oral administration of itraconazole, a complete blood cell count and serum biochemical analyses were performed to monitor for hepatic side effects every week. But the alanine aminotransferase, aspartate aminotransferase and alkaline phosphatase levels have been within the normal range, and no side effects were observed. There was a report that sporotrichosis in cats was treated by surgical excision, application of amphotericin B and oral administration of sodium iodide. The treatment was not effective, however, and the lesion recurred. The lesion disappeared after oral administration of ketoconazole [8]. Another report revealed improvement by oral administration of 20% potassium iodide [4]. Iodide is reasonable in cost, but cats show greater susceptibility to the development of toxic side effects from iodides [3]. Moreover, ketoconazole has not been authorized for animal medication in Japan. So the present case was treated with surgical excision and itraconazole administration to prevent recurrences, and the cat showed improvement.

Itraconazole belongs to the triazole derivativeazole group of synthetic anti-fungal agents [9]. It is more effec-
tive and better tolerated by cats than ketoconazole [1]. Cats may develop hepatic toxicosis and anorexia [1], but the present cat has not evidenced toxicity. The recommended dosage of cryptococcosis in cats is 50 mg/day for cats weighing under 3.2 kg and 100 mg/day for cats weighing over 3.2 kg. Depending on the infection, the course of treatment may run 30 to 90 days or longer. To avoid relapse and failure, the treatment should be continued for 1 to 2 months after the patient is clinically normal [9]. The present case had been continuously treated for 64 days with oral administration of 81 mg/day (15 mg/kg) referring to the lowest dosage in the treatment of cryptococcosis.

In Japan there has been only one report of feline sporotrichosis [8]. If mycosis was suspected, it had to be diagnosed definitively on the basis of histopathological, mycological and molecular examinations. Excision of the affected lesion is the treatment of choice for feline sporotrichosis.

REFERENCES