Appendix S1

PATIENTS, MATERIALS AND METHODS

A retrospective chart review was performed of patients with SSc and toe gangrene who were admitted to our department. The diagnosis of SSc was made according to American College of Rheumatology classification criteria for SSc (5). Subtype classifications of SSc were based on LeRoy's criteria (1).

To evaluate the severity of ischaemia, both "traditional" and "alternative" ABI were used. Traditional ABI was calculated by dividing whichever was higher of the blood pressures in the dorsalis pedis artery or posterior tibial artery by whichever was higher of the left or right brachial pressures. These pressures were measured using Doppler methods. The alternative ABI was calculated using whichever was lower of the dorsalis pedis or posterior tibial artery pressures divided by brachial pressure (6). To assess macroangiopathy in the lower extremities, angiographic evaluations were conducted, including magnetic resonance angiography, computed tomographic angiography, and/or conventional catheter angiography.

Below-the-knee artery/arteries were taken from the amputated limbs of patients (patients 4 and 6) and histological examinations were conducted using haematoxylin and eosin staining, colloidal iron staining for the detection of acid mucopolysaccharide deposition, and Masson's trichrome staining for the detection of fibrosis.