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Stress Fracture of the Sixth Rib in an Elite Athlete

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We report on a previously unreported site of rib stress fracture in an elite athlete. A 27 year old sweep rower, a National champion and an Olympic finalist, presented with a 3-day history of the left-side thoracic pain. Technetium 99m bone scintigraphy showed increased focal uptake of the radioisotope, leading to the diagnosis of stress injury of the anterolateral part of the sixth rib. The probable mechanism of this injury was that strong muscle force itself was great enough to produce a fracture. In the case of our rower, the precipitation cause was only a slight change in the rowing technique, in contrast to all other reports on such rib fractures among rowers where the primary cause was an increase in the level of strength training. The treatment included a complete rest of the affected area and upper extremities, while the cardiovascular and strength fitness was maintained. The athlete was able to resume with his standard training routine less than four weeks after the onset of the symptoms.

Key words: athletic injuries; rib fractures; stress fractures; sports medicine; Technetium 99m