

History Page: Leaders in MSK Radiology Augusto Pellegrini, 1877–1958

Filip M. Vanhoenacker, MD, PhD^{1,2,3}  Alberto Bazzocchi, MD, PhD⁴ Giuseppe Guglielmi, MD^{5,6}

¹Department of Radiology and Antwerp University Faculty of Medicine and Health Sciences, Antwerp University Hospital, Edegem, Belgium

²General Hospital Sint-Maarten Mechelen, Mechelen, Belgium

³Faculty of Medicine and Health Sciences, University of Ghent and Leuven, Ghent, Belgium

⁴Diagnostic and Interventional Radiology, IRCCS Istituto Ortopedico Rizzoli, Bologna, Italy

⁵Radiology Unit, Department of Clinical and Experimental Medicine, Foggia University School of Medicine, Foggia, Italy

⁶Department of Radiology, Scientific Institute “Casa Sollievo della Sofferenza” Hospital, San Giovanni Rotondo, Italy

Address for correspondence Filip M. Vanhoenacker, MD, PhD, Department of Radiology and Antwerp University Faculty of Medicine and Health Sciences, Antwerp University Hospital, Drie Eikenstraat 655, B-2650 Edegem, Belgium
(e-mail: filip.vanhoenacker@telenet.be).

Semin Musculoskelet Radiol 2023;27:393–394.

Abstract

Keywords

- ▶ Pellegrini-Stieda disease
- ▶ heterotopic calcification
- ▶ history

This history page in the series “Leaders in MSK Radiology” is dedicated to the memory and achievements of the Italian surgeon Augusto Pellegrini, whose name is partially associated with the medical eponym Pellegrini-Stieda disease.

Augusto Pellegrini (–**Fig. 1**) was born on June 26, 1877, in Fucecchio, Italy.¹ He graduated as a medical doctor from the Department of Medicine, Institute of Advanced Practical and Specialized Studies of Florence, and worked in various



Fig. 1 Photograph of Augusto Pellegrini.

remote institutions in Northern Italy, both as a clinician and a researcher.²

In 1906, Pellegrini was appointed head surgeon at the United Hospitals of Città di Castello in Umbria and a year later as director of Marradi Hospital in Tuscany, a position he held until 1913. From 1907 on, he became affiliated with the Institute of General Surgery of Florence, first as an assistant and in 1910 as a lecturer in operative medicine.

In 1913, he became head of the Institute of Surgery at the University of Perugia and leading surgeon and director of the Mellino Mellini Hospital in Chiari in Lombardy until he retired.

During the First World War, the hospital in Chiari was converted to a reserve military hospital. As a medical major, Pellegrini was entrusted with organizing the care of sick and wounded military personnel returning from the front. In 1917, he was also mobilized to the front line in Isonzo and escaped miraculously from death during the battle of Caporetto.³

Issue Theme Imaging of the Ankle and Foot (ESSR); Guest Editors, Eva Llopis, MD, M. Jose Ereño, PhD, and Silvia M. Martin, PhD

© 2023. Thieme. All rights reserved.
Thieme Medical Publishers, Inc.,
333 Seventh Avenue, 18th Floor,
New York, NY 10001, USA

DOI <https://doi.org/10.1055/s-0043-1761958>.
ISSN 1089-7860.

As a general surgeon, Pellegrini's main fields of interest were abdominal, orthopaedic surgery, and traumatology. He recommended early intervention of appendicitis within 24 to 48 hours of diagnosis to avoid complications. He also advocated abdominal radiography for the evaluation of the acute abdomen. Other scientific contributions were related to liver resection, pancreas cysts, tumor thrombosis of the inferior vena cava in renal cell carcinoma, and the use of forceps in gastroenterostomy for intussusception to avoid hemorrhage, seroprophylaxis, and serotherapy for gas gangrene. He recommended the use of ether as a safe anesthesia and advocated disinfection of the hands solely with alcohol before each surgical procedure.² Like many of his contemporaries in medicine, Pellegrini also focused on the treatment of tuberculosis by establishing dedicated hospitals in the mountains.²

Due to his extensive experience with amputation during the First World War, he was in a position to focus his research on limited limb amputation to create a functional skeletal stump. Together with Giuliano Vanghetti (1861–1940), Pellegrini developed kinematic prostheses of the upper extremity, also known as kineplasty, enabling the patient to use his muscles to power the prosthesis.^{2,4} For this groundbreaking work, he was awarded a prize in Venice in 1926 at the national congress of the Italian Society of Orthopaedics.

Pellegrini was the first to report a case of calcification of the collateral ligament of the knee in a 36-year-old man who fell at work on October 6, 1904, from a height of 2 m, striking the surface of his internal knee on an iron vessel (→Fig. 2).⁵ The same disease was described 3 years later by the German surgeon Alfred Stieda (1869–1945). Since then, this disorder worldwide is referred to as Pellegrini-Stieda disease.⁶ It is of note, however, that this type of ossification was also reported in 1905 by the German author Alban Köhler in a radiographic atlas.³

After a very successful and rewarding career, Professor Augusto Pellegrini died on June 11, 1958, in Chiari. The city

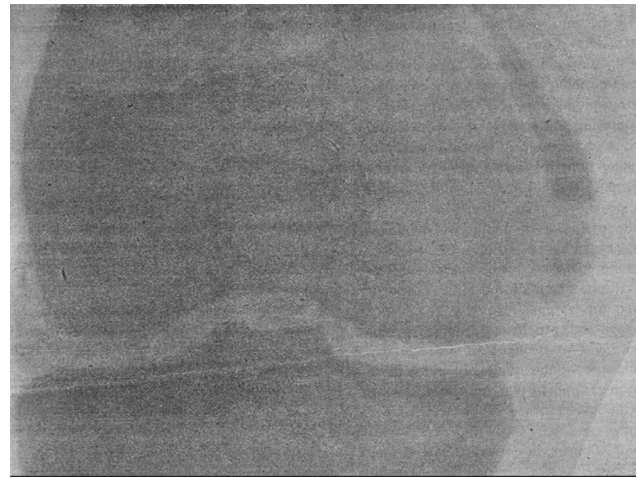


Fig. 2 Radiograph from Pellegrini's original publication on ossification of the medial collateral ligament, later designated as Pellegrini-Stieda disease (open license).

hospital dedicated a bronze bust to him in the entrance hall.³

References

- 1 Marenzio L 1903–2003: Centenario della Laurea del Prof. Augusto Pellegrini. Accessed July 9, 2022 at: <http://www.circolomarenzio.it/Prodotti/Folder/06 - Folder1.htm>
- 2 Zhang G, Cadogan M Augusto Pellegrini. LITFL - Life in the Fast Lane. Accessed July 9, 2022 at: <https://litfl.com/augusto-pellegrini/>
- 3 Spina N. Il paladino Augusto Pellegrini: paternità italiane da difendere!. *G Ital Ortop Traumatol* 2020;46:272–281
- 4 Porro A, Lorusso L. Augusto Pellegrini (1877–1958): contributions to surgery and prosthetic orthopaedics. *J Med Biogr* 2007;15(02): 68–74
- 5 Pellegrini A. Ossificazione traumatica del legamento collaterale tibiale dell'articolazione del ginocchio sinistro. *Clin Med* 1905; 11:433–439
- 6 Stieda A. Über eine typische Verletzung am unteren Femurende. *Arch Klin Chir Berlin* 1908;85:815