

Case	(345) Pelvic venous vessels thrombosis clinically manifested as painful hip in a pediatric patient.
Authors	M. Revelles Paniza, I. Garrido Márquez, M. Fernández Conesa.
Centre	Hospital Universitario San Cecilio.

CASE PRESENTATION

We present the case of a 13-year-old male patient who attended Pediatric Emergency Service due to severe pain in the right hip that severely limited ambulation. In addition, the patient reported low-grade fever and irradiation to the homolateral testicle.

There was no other significant signs or symptoms. As a clinical antecedent, the patient presented right renal atrophy due to thrombosis of the homolateral renal vein during the neonatal period. No further studies or subsequent monitoring of the cause of the venous thrombosis were reported.

Pediatricians request an ultrasound of the hip to rule out the existence of arthritis as a cause of pain.

No fluid was identified in the right coxofemoral joint or other ecographic signs of arthritis.

However, we observed thrombosis of the arch of the internal saphenous vein as well as the common and superficial femoral vein, common iliac vein, internal and external iliac veins and pelvic vein branches. When trying to study the vena cava, it was permeable but of markedly diminished caliber.

DISCUSSION

Hip pain in children and adolescents can be due to multiple causes (inflammatory, infectious, vascular...).

Although in our case the patient's approach was more oriented to non-traumatic hip pain, both sonographic and complementary CT findings showed completely different findings. The diagnosis was chronic thrombosis of the inferior vein cava with secondary development of numerous venous collaterals and right renal atrophy due to the antecedent referred of homolateral renal vein thrombosis.

There was also acute venous thrombosis of the right common iliac vein, internal iliac vein, pelvic veins, as well as the external iliac, common femoral and superficial femoral veins of the right lower limb. Given these findings, a hematological study of the patient was carried out, confirming the existence of a prothrombotic state due to protein C deficiency.

CONCLUSION

Non-traumatic hip pain in the pediatric age can have an origin in the hip but it can also be a referred pain. In our patient, the origin of pain was the thrombosis of the pelvic veins, whose cause was due to a prothrombotic state.

It is fundamental that the radiologist hurries the different diagnostic options available to reach the definitive diagnosis and take into account both the causes of pain originating in the hip as well as the referred pain.

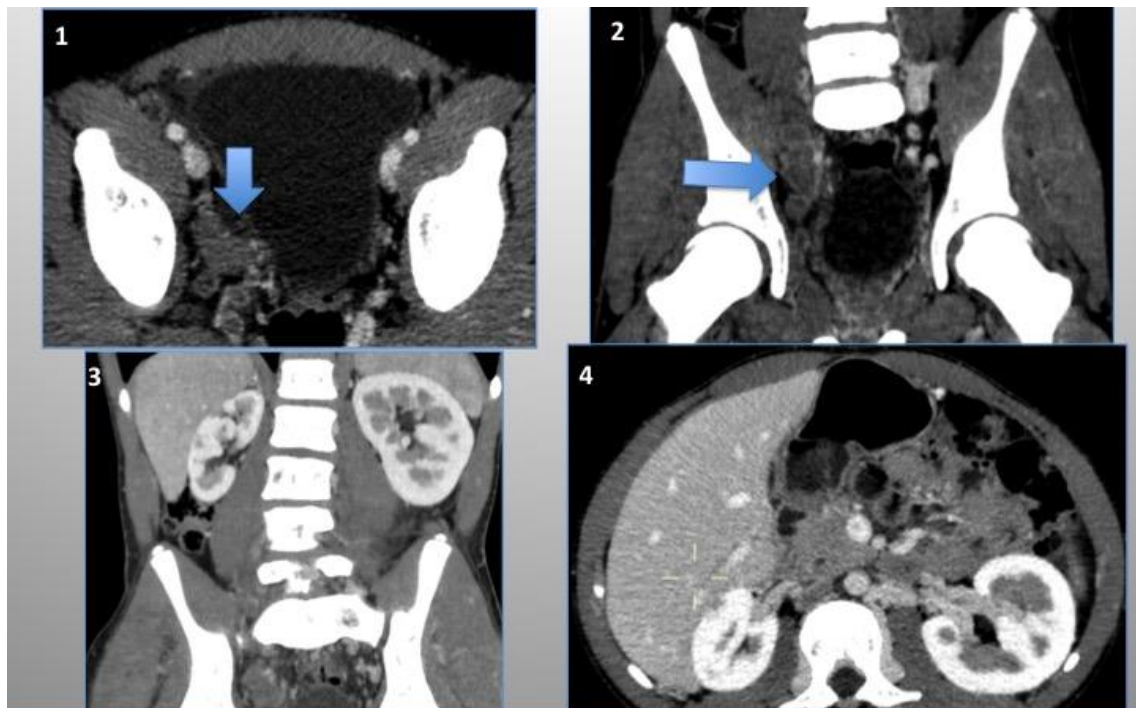


Fig 1 and 2. Contrast enhanced CT . Acute venous thrombosis of right common iliac vein, internal and external iliac veins and pelvic veins (arrows). Fig. 3 and 4: Right renal atrophy due to thrombosis of the renal vein in the neonatal period. Chronic inferior vena cava thrombosis with development of paravertebral venous colaterals.

BIBLIOGRAPHY

- Gill KG. Pediatric hip: pearls and pitfalls. *Semin Musculoskelet Radiol.* 2013 Jul;17(3):328-38.
- Devred P, Tréguier C, Ducou-Le-Pointe H. Echography of the hip and other imaging techniques in pediatrics. *J Radiol.* 2001 Jun;82(6 Pt 2):803-16.
- Van Ommen CH, Heijboer H, van del Dool EJ, Hutten BA, Peters M. Pediatric venous thromboembolic disease in one single center: congenital prothrombotic disorders and the clinical outcome. *J Thromb Haemos.* 2003;1(12):2516-22.