

中文題目：心衰竭罕見的併發症：睪丸腔室症候群

英文題目：An unusual complication of congestive heart failure: testicular compartment syndrome

作者：徐永翰¹、陳柏偉¹

服務單位：¹成大醫院內科部

Introduction(前言):

The causes of scrotal edema include trauma, radiation therapy, acute and chronic epididymitis, infection, or fluid overload.

If the edema causes elevation of intraparenchymal vascular resistances and pressure, the circulation to testicles will be decreased. This situation can be emergent and develop compartment syndrome rapidly.

We are presenting a rare case of testicular compartment syndrome in a heart failure patient. The patient underwent an operation for scrotal debridement and recovered after the procedure.

Case presentation(個案報告):

A 57-year-old male with a history of atrial fibrillation and heart failure performed daily activities independently. He suffered from bilateral leg edema and dyspnea for months. Decreased urine amount, scrotum swelling, and abdominal distention were also presented.

He visited our emergency room for progressing disease. Laboratory data revealed elevated N-terminal prohormone of brain natriuretic peptide, hyperbilirubinemia and leukocytosis. The echocardiography reported chamber dilatation with mildly reduced ejection fraction and moderate mitral valve regurgitation. The chest X-ray film revealed pulmonary edema pattern. Abdominal computed tomography revealed mild ascites and subcutaneous edema. Fluid accumulation around the scrotum also appeared.

On admission, persistent erythema and swelling over scrotum were noticed. We titrated the dose of diuretics, but progressive necrosis appearance still presented. Urologist was consulted. Fournier's gangrene was suspected first. He underwent incision and drainage immediately. Operative finding revealed no pus formation but tissue edematous changes. Testicular compartment syndrome caused by severe edema was diagnosed.

Aggressive diuretics treatment course was performed to relieve scrotal pressure. His body weight decreased from 98 kg to 78 kg in a month. After dischargement, the wound healed smoothly, and Foley tube was removed. There was no complication of the urinary system.

Discussion(討論):

Testicular compartment syndrome is defined as decreased perfusion in testicular tissue related to compression, leading to hypoxia and infarction. It is an emergent situation that needs evaluation quickly and closely.

There was multiple origin of testicular compartment syndrome. Increased venous resistance and extraluminal compression are the main mechanism. As a possible cause of testicular extraluminal compression, heart failure is a complex clinical syndrome. Some non-specific symptoms are early heart failure signs like fatigue, dyspnea on exertion and peripheral edema. Scrotum edema could also present as a type of peripheral edema.

In the less severe cases, increasing the dose of the diuretics only was acceptable. However, in the more severe cases, fasciotomy is necessary for relieving pressure. Besides, centesis of the scrotal wall could be an alternative method to relieve the symptom.

Conclusion(結論):

The case that progressed to testicular compartment syndrome was rare. Both standard treatment for heart failure and testicular compartment syndrome should be performed.