

## CASE REPORT

### URINARY FISTULA COMPLICATING GLUTEAL INJECTION

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#### SUMMARY

Complications resulting to injections in children are not uncommon. Quite often, this is as a result of practices not based on standard medical principles. Recently, a 3-year old boy developed an external urinary fistula in the gluteal region. Following an injection by a non-medical practitioner. The fistula was successfully managed conservatively.. The menace of quackery in medical practice in tropical Africa is reported.

Keywords: Injection, quackery, and complications

Running title: Urinary fistula complicating gluteal injection

#### INTRODUCTION

The rampant use of injections to treat childhood illness is a common practice in our environment, especially among non-medical practitioners. This has frequently led to a number of complications, including abscesses and rectocutaneous fistulae<sup>1</sup>. The case being presented is an unusual complication following a gluteal injection in a Nigerian child.

#### CASE REPORT

A 3-year old boy, U.U with hospital number:236426, was referred to the Jos Univeristy Teaching Hospital (JUTH) from a peripheral clinic with a 3-week history of leaking fluid from the right buttock. The boy had received an intramuscular injection in the right gluteal region by a quack for a febrile illness in a village around Jos. About a week later, he developed a painful swelling at the injection site. There was associated fever, vomiting, anorexia, dehydration and cough. He had diarrhoea for ten consecutive days prior to presentation. He also had difficulty in passing urine. The attendant quack diagnosed him as having 'gonorrhoea' and an injection abscess which he incised and 'drained'. Two days after, the boy was noticed to be leaking 'clear fluid' from the drainage site and was taken to the referring clinic for further management.

At the time of presentation at the Accident and Emergency casualty of JUTH, the boy was very ill-looking. He was afebrile (T=37<sup>0</sup>C), but dehydrated. Chest examination revealed bronchial breath sounds and creptations all over the lung fields. The examination of the right

gluteal region showed a fistulous opening, about 1.0cm diameter, leaking an amber-coloured fluid with ammoniacal odour. Pressure on the suprapubic area increased the flow of the fluid. An assessment of uro-cutaneous fistula and bronchopneumonia was made.

Blood chemistry on admission revealed gross electrolyte derangement, which took time to correct. Separate samples of urine from the catheter and the gluteal fluid yielded the same culture of proteus species. Full blood count revealed leucocytosis (marked neutrophilia with toxic granulations). Intravenous urography could not be done because of financial constraints. Mantoux test was insignificant. Blood culture yielded no growth.

He was adequately resuscitated and treated with appropriate antimicrobial agents. He was on continuous urethral catheter drainage for two weeks. The wound was dressed daily until the urinary leakage spontaneously ceased, with complete closure of the fistula. The period of hospital stay was 18 days.

### DISCUSSION

Quite often an abscess complicates intramuscular injection when the basic rules of asepsis are not observed, or in the presence of pre-existing skin infection. Such abscesses are usually superficial and therefore present early enough for treatment, thus obviating any significant pressure building up in the deeper tissues<sup>1</sup>. Traditionally, such abscesses are satisfactorily managed by incision and drainage<sup>1,2</sup>. In the case under consideration, there was probably a long-standing deep-seated abscess that had eroded through the urethral wall before pointing in the gluteal region. The ammoniacal smell, common isolates between the urine and the gluteal fluid and increase flow upon suprapubic pressure, suggest a fistulous connection between the urinary system and the skin (a uro-cutaneous fistula). It was not certain what part of the urinary tract was involved, since intravenous urography could not be done, due to financial constraints. Experience has shown that many patients come to the hospital in tropical Africa not having enough money for necessary diagnostic investigations and desired treatments. This is partly because they would have spent most of their finances in the chemist-shops, herbalist homes and/or peripheral clinics for unsuccessful treatments before seeking proper medical intervention.

The questionable medical knowledge of the practitioner could have resulted in the abscess and the subsequent uro-cutaneous fistula that ensued. His poor knowledge was demonstrated when the difficulty in passing urine was attributed to gonorrhoea, a very unlikely pathology in this age! The uro-cutaneous fistula could have been due to either of three things. Firstly, it is possible that a deep-seated abscess from needle contamination caused a pressure necrotic effect on the right ureter leading to a perforation. Secondly, it is also possible that the needle was inserted too deep as to have traversed the walls of the ureter, leading to an initial urinoma which began to drain through the point of invasion and drainage. Thirdly, the injury could have also risen from direct needle puncture of the urinary bladder through the sciatic foramen as may occur in a struggling child at the time of injection, in the hands of a quack without the knowledge of anatomy. This could explain the spontaneous closure of the fistulous tract consequent on continuous bladder drainage.

Injection abscess is a common occurrence that could lead to fistula formation. Adotey reported a recto-cutaneous fistula following drainage for a gluteal injection abscess<sup>1</sup>. Other authors have reported cases of external intestinal fistulae complicating the drainage of abscesses<sup>3,4,5</sup>. The common denominator in these unusual complications has been ignorance or inadequate surgical knowledge<sup>6</sup>. Perhaps, this present complication could have been avoided if

qualified medical personnel administered the injection or performed the abscess drainage. It is equally possible that if the early features of the abscess formation were recognized and prompt reporting to the hospital and appropriate surgical intervention were done, this unfortunate urinary complication could have been prevented.

It is hoped that with increase level of awareness coupled with early and regular patronage of proper health services, the toll from the menace of quackery would be tamed in our environment.

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