The ‘Dr Google’ phenomenon—missed appendicitis

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Abstract

Self-diagnosis has been around for many years. In today’s society with free access to information, particularly through the Internet, it is more prominent than ever. With new information sources available to patients, doctors may have their diagnostic process influenced. This is the case of a gentleman who self-diagnosed, and subsequently influenced his doctor’s diagnostic process, with results detrimental to his outcome. It illustrates the importance of awareness of the risks of self diagnosis, and management of patients who present with information and preconceived ideas regarding their condition.

This is a case of Internet self-diagnosis by a patient resulting in delayed diagnosis and treatment. Self-diagnosis in the past has typically been limited to doctors and other health professionals. In the age of the Internet, patients are now empowered more than ever. It is commonplace today for people without medical training to attempt self diagnosis and treatment using unvalidated Internet resources.

Few doctors have not encountered a patient who has “Googled” their symptoms or condition. Hudak et al found physicians believe Internet-based health information was often inaccurate and problematic, though many were unprepared to handle these patients despite literature in this area recommending against self diagnosis.1–3

Case report

Mr K is a 48-year-old healthy gentleman who became unwell with constant right-sided loin pain, at times radiating to the groin, and dark coloured urine. He attempted self diagnosis via internet search, deciding renal calculi were the most likely diagnosis. He started treatment with naproxen without consultation. His symptoms did not improve and after ten days he consulted his Family Physician, suggesting the diagnosis of renal calculi during the consultation. The doctor agreed changing his medication to celecoxib, and adding paracetamol and codeine. A computed tomography (CT) scan was suggested, though deemed too expensive.

Mr K’s condition worsened and after 2 weeks he presented to the emergency department with persisting right lower quadrant pain, reduced oral intake, watery diarrhoea and nausea. He was evaluated by an Emergency Physician and was febrile (38°C), tachycardic (heart rate 130 bpm) with localised lower abdominal peritonism. A CT KUB (Kidney, Ureter and Bladder) was ordered and showed two collections, a 14cm×8.4cm×12cm retrovesical collection, with an air-fluid level and dense rim, and a 5cm×9.5cm×8.7cm retrocaecal collection with pockets of internal gas, but no free intraperitoneal gas. In the inferior aspect a well circumscribed calcific density, likely to represent an appendicolith was seen. The kidneys were normal with no evidence of hydronephrosis or calculi.
Mr K was diagnosed with missed appendicitis with perforation by the General Surgical team and started on intravenous cefuroxime and metronidazole. He underwent CT guided drainage of 500mL of purulent fluid, using an 8 French pigtail catheter (Figure 1).

Mr K gradually improved and was discharged on oral antibiotics. He was well when followed up in clinic, and booked for an interval appendicectomy.

**Figure 1. CT image during the guided drainage procedure**

### Discussion

Appendicitis is a common medical condition, though as many as 20% may perforate within 24 hours, which may result in abscess formation. Management of appendicitis complicated by perforation can be either surgical (laparoscopic or open) or CT guided drainage and interval appendicectomy. CT guided drainage (followed by interval appendicectomy) has been shown to be safe and effective, with success rates of over 90%.

While the risks of self diagnosis are evident and may be related to increased availability of information for the general public, this information when used appropriately can positively influence healthcare. Available information may result in improved self awareness, understanding, and a sense of self responsibility for patient care. It may also cause some patients to seek specialist advice when they otherwise
This case demonstrates the downside of such availability, and the potential pitfalls of inappropriate use of such information.

The delay in diagnosis in this case was a likely contributing factor in perforation and abscess formation illustrating the risks of self diagnosis. These risks are being increasingly documented and commonly surround over the counter medication. This case is particularly pertinent as the patient, after attempting self diagnosis consulted his family doctor. A major lesson to be learned is when formulating a differential diagnosis extreme care must be taken not to be unduly influenced by a patient’s self-diagnostic conclusion.

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