SMA NEWS

Vol. 46 No. 5 May 2014
MCI (P) 083/01/2014

THOUGHTS ON MANAGING IATROGENIC COMPLICATIONS

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The complication

My long term patient, Mr M, who has fatty liver, came to me requesting a screening colonoscopy. I did the scope with ease and found two polyps in his colon, so I conducted an endoscopic polypectomy on him. There was no immediate bleeding post-procedure. I reviewed Mr M two days later, and explained to him that the pathology was tubular adenoma, a precancerous condition. Mr M was well at the outpatient review and returned to Jakarta a day later.

Five days after the procedure, I received an urgent call from Mr M's son who said his father passed fresh blood in his stools, and sent me a photograph. It appeared to be fresh melena. I asked Mr M to fly to Singapore urgently on the same day. Mr M and his family complied, and I met them at the emergency department at 10 pm that night. Indeed, a rectal examination revealed fresh melena. I did a colonoscopy the following morning and found active bleeding at a polyp stalk. I applied a haemoclip at the stalk, and the bleeding stopped (see photos on facing page). Mr M stayed in Singapore for another three days and went home only after we were sure that the haemorrhage had been arrested.

Learning how to manage iatrogenic complications

A polypectomy prevents colon cancer, and is generally a safe procedure. The risk of post-polypectomy bleeding is about 1%. While we have structured programmes to train us to perform colonoscopies and polypectomies, there are none for managing iatrogenic complications.

As a registrar, I had to first observe 100 colonoscopies before I was allowed to conduct the operation under supervision. After carrying out 100 colonoscopies under supervision, I could then conduct the procedure independently.

But iatrogenic complications like post-polypectomy bleeding or perforations are rare, so having a structured training programme is not possible. As a result, we often learn how to manage these complications through apprenticeship, that is, from observing how our seniors react and respond when such situations occur. Obviously, depending on the number of procedures performed in a particular unit, a junior doctor may not encounter enough complications during their training.

Complications are often not discussed openly

A popular saying among senior physicians is, "If a doctor does not encounter any complications, the doctor has not done or seen enough."

But it is equally true that it is always better to learn from others' complications than learning from your own. While it is quite common for doctors to share difficult cases that they have encountered, it is unusual for them to discuss complications they have faced.

Complications must be managed with utmost urgency

Complications resulting from medical treatments or procedures will hurt our patients and increase healthcare costs. Most critically, if these complications are not handled properly, they can lead to dire consequences for both patients and doctors.

While I dare not claim that I am an expert in managing iatrogenic complications, I have handled several complications of my own and those of my colleagues, and would like to share some thoughts on this issue.

The 5 Rights of prevention

Many iatrogenic complications can be averted or alleviated with due diligence in several aspects, which I call the 5 Rights of prevention.

1. **Right indication.** Make sure the procedure is indicated for the particular patient. Iatrogenic complications arising due to a procedure or operation without firm indications are an invitation for litigation.
2. **Right consent.** Ensure that the risks, potential complications, and alternatives to the surgery are well explained to the patient with proper documentation.

3. **Right patient.** Confirm that the patient is medically and psychologically fit. If necessary, consult a cardiologist or an anaesthetist to reaffirm a patient's fitness for the operation. Also make sure that the patient is psychologically prepared for it. Never hurry a patient into taking a specific medication, or undergoing a particular surgery or procedure. I have learnt that the more we push, the more resistance we get from patients. And they will be very upset when a complication occurs.
4. **Right family support.** Realise that if a complication does occur, the patient may not be there to defend you. Even if a patient agrees to a procedure, we must still ensure that his family is aware of the surgery that he will be undergoing. This is particularly crucial for patients with large families or extended families. It is good practice to hold a family conference prior to a patient's important operation, so all members will be aware of the potential risks.
5. **Right doctor.** I never feel embarrassed to ask fellow gastroenterologists or other specialists to help when I think I need it. There is no shame in asking for support. I have learnt that patients actually appreciate my honesty when I tell them that I will get someone better than me to come in for assistance or co-management.

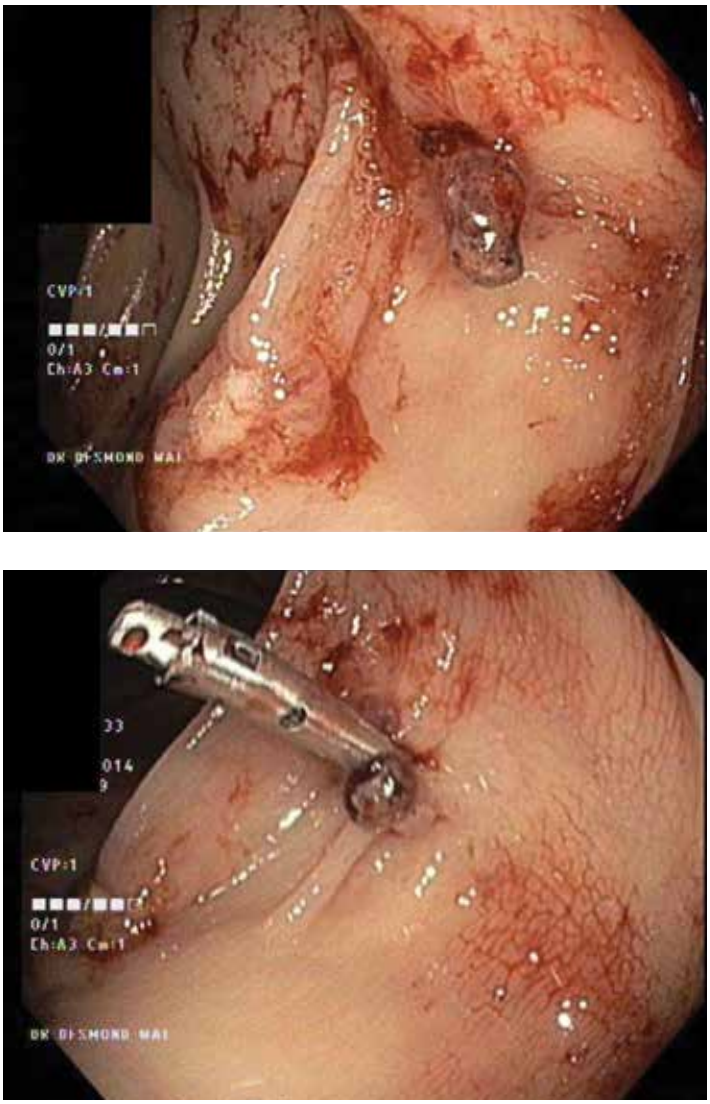
The 5Ss of crisis management

When a complication occurs, I use the 5S approach to deal with it.

1. **Speedy acknowledgement.** Iatrogenic complications are usually unexpected and can be very traumatic for the patient. It is essential to be immediately contactable so the patient and his relatives can hear the explanation. Keeping quiet, brushing their complaints aside, or being uncontactable will create more frustration.

   Nowadays, when patients feel something may have gone wrong after a surgery, they will actively (and sometimes aggressively) seek clarification or even escalate the matter to a higher authority. It is always best for the surgeons or doctors in charge to diagnose their own complication, rather than let the patients find out from another doctor.

   Some time ago, I saw a patient complaining of jaundice after a lap cholecystectomy. According to him, the surgeon did not explain the details, but rushed him for an urgent endoscopic retrograde cholangiopancreatography. So the patient came to me for a second opinion. From my assessment, the lap cholecystectomy was incomplete, and stones within the remnant gallbladder neck blocked the common bile duct, causing biliary obstruction. The patient was furious when he learnt that his surgeon had not told him about the complications.



Top **A visible vessel was observed at the polypectomy site, and there was fresh blood in the colon**

Bottom **A haemoclip was applied endoscopically to stop the bleeding**

2. **Shoulder responsibility.** This does not necessarily mean acknowledging negligence or professional misconduct. With regard to my patient Mr M, I actually told him that the bleeding was caused by the polypectomy itself. Of course, having post-polypectomy complications does not equate to clinical negligence.
3. **Sincere communication.** Be kind, sincere, and gentle when breaking bad news to the patient and his family. Provide a frank and logical explanation in a calm manner. Be honest as there is really no point in hiding the complication once it has occurred.
4. **Strategic alliance.** Once a complication occurs, it is often beyond the doctor's area of specialty. Most of the complications resulting from gastroenterology work, like bowel perforations, post-polypectomy bleeding, aspiration, and so on, would require a multidisciplinary team consisting of intensivists, surgeons and

Before a procedure, observe the 5 Rights to prevent and mitigate any complications:

- Right indication
- Right consent
- Right patient
- Right family support
- Right doctor

After a complication occurs, manage the situation using the 5Ss:

- Speedy acknowledgement
- Shoulder responsibility
- Sincere communication
- Strategic alliance
- Solve the problem

radiologists. Hence, it is essential to involve good and trusted colleagues from other specialties in that patient's care.

5. **Solve the problem.** This is THE most important part in a crisis management. Patients and their relatives are understandably worried and upset when complications occur. But most of them would forgive and forget if the complication is resolved. I never feel shy to request colleagues, fellow gastroenterologists and other specialists to lend me their expertise in solving complications. And I will literally drop all other duties when a complication occurs, just to ensure the problem is ironed out and the patient gets well.

Post-mortem

After the complication has been resolved and the patient discharged, it is time for a post-mortem. Complications must be well scrutinised to ensure future occurrences can be minimised, or their severity mitigated. Root cause analysis techniques can be applied in some cases.

Many hospitals have departments in charge of risk control to provide counselling or psychological support to any patient who has experienced a complication. But we as doctors must still do our best in damage control. The post-mortem should always be sincere, and carried out with the desire to improve the process and reduce future complications. We should not turn defensive and try to shirk responsibility.

When I was a junior doctor, one particular consultant always had very high rate of complications. At each Mortality and Morbidity (M&M) meeting, the consultant would just push the blame to whichever registrars had assisted him during the procedures. No sincere or concrete solutions ever came out of those M&M sessions. Without any honest evaluation, that particular consultant continued to encounter complications.

Final words

I recently had a patient who unexpectedly developed bradycardia and hypotension during an endoscopic operation. Fortunately, an anaesthetist was there to administer general anaesthesia. She ordered me to abort the procedure, turned the patient back to a supine position, and started resuscitation. The patient went back to sinus rhythm after three vials of atropine and air-bagging.

I met the patient's relatives immediately after the resuscitation, and explained he had suddenly became bradycardic, hypotensive and desaturated during the surgery. We were fortunate that the resuscitation brought him back. But the procedure was terminated, and would be rescheduled after a cardiologist referral. I also addressed the possibilities leading to the collapse. The family, and later, the patient, understood and accepted our clarification.

While we were busy performing the resuscitation, my clinic nurse kept phoning to inform me that there were patients waiting at my clinic and they were griping about the delay. But I just had to prioritise and let go of everything else to focus on ensuring that my patient recovered after the unexpected collapse.

I have suggested the 5 Rights and 5Ss guidelines to attenuate complications, and to assuage the situation when complications happen. As all of us will encounter adverse effects and iatrogenic complications during our careers as doctors, we should be on our guard all the time. ■

Desmond is a gastroenterologist in private practice. He strongly feels that sharing our success and failures with one another is the best way to move forward.