Case Report

Managing a case of acute calculous cholecystitis at home: Highlighting the role of family physicians in providing home-based care

Ashoojit Kaur Anand[1], Praneeth Pilala[2], Swathi S. Balachandra[3], Prathamesh Sharad Sawant[4], Ramakrishna Prasad[3], B. C. Rao[3]

[1]Department of Geriatrics and Palliative Care, PCMH Restore Health, [2]Quality and Safety Officer, PCMH Restore Health, [3]Department of Family Medicine and Primary Care, PCMH Restore Health, [4]Clinical Pharmacist, Department of Geriatrics and Palliative Care, PCMH Restore Health, Bengaluru, Karnataka, India

Abstract

Laparoscopic cholecystectomy is the generally recommended management of acute calculous cholecystitis. It is important for family physicians to be taken into consideration that for some patients the surgical risk–benefit profile favors conservative management. Here, we highlight the possibility of safe, home-based, conservative management of acute calculous cholecystitis in a patient-centered and evidence-based manner by a team of family physicians with backup support of their specialist referral network. We use this case to highlight the value of family physicians providing home-based care.

Keywords: Acute calculous cholecystitis, evidence-based management, family physician, geriatrics, home based care, patient-centered care

Introduction

Surgical procedures such as cholecystectomy, particularly among the elderly, are associated with relatively high complication rates, and therefore, the decision whether or not to perform surgery should be thoughtfully considered.[1] Home-based care when provided by family physicians reduces the cost of treatment, promotes recovery, and increases comfort and convenience for patients and families.

In this paper, we highlight the possibility of safe, home-based, conservative management of acute calculous cholecystitis in a patient-centered and evidence-based manner by a team of family physicians with backup support of their specialist referral network.

Address for correspondence: Dr. Ashoojit Kaur Anand, PCMH Restore Health, 2nd Main Road, VV Giri Nagar, Seshadripuram, Bangalore - 560 027, Karnataka, India.
E-mail: ashoojit@gmail.com

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Case History

An 82-year-old male, a retired Indian Air Force officer and had gone on a strenuous hike on 26 December, developed vomiting on the night of 31 December 2018. This was after a small drink of whiskey and a light dinner. He had five to six episodes of vomiting which was followed by pain in the upper abdomen and two to three episodes of loose stools that night. His daughter, who is a physician, gave Inj Ondansetron, Pantoprazole and 500 mL of intravenous (IV) saline as he appeared dehydrated. On the second day, he fell thrice, once in the bathroom and subsequently twice in the bedroom while attempting to walk. His falls were attributed by him to pain and tiredness; however, there was no loss of consciousness or any significant injuries. On the third day, he developed fever of 100.2–102°F and reduced oral intake.

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In terms of past medical history, he is known to have bilateral hearing impairment, chronic gastritis, asthma, and atopic dermatitis with eczema and on treatment with formoterol inhaler twice a day and asthalin inhaler need based. He also had Benign Prostatic Hypertrophy and was on Tamsulosin capsule daily, no other comorbidities such as hypertension, diabetes, liver disease, or cardiac illness.

On day three, a complete blood count revealed a total leukocyte count of 20,000 cells/cumm, total bilirubin of 1.21 mg/dL, and Troponin T was negative. During a home visit by the Family Medicine team, examination revealed that he was mildly disoriented, had wheezing, and temperature of 100.2° F. Blood pressure was 166/90 mm of Hg, respiratory rate was 30/min, and heart rate was 120/min. His abdomen was soft with tenderness in the right upper quadrant, epigastric, and periumbilical regions. Considering the possibility of acute cholecystitis, oral Ciprofloxacin 500 mg twice daily was started. Paracetamol and Dicyclomine were continued for analgesia. Abdominal ultrasound and urinalysis were advised. On day four, the ultrasound showed thickened gallbladder wall (4 mm) with multiple calculi (4–5 mm in size). A diagnosis of acute calculus cholecystitis was confirmed.

The option of surgical management was discussed, but the family was concerned that given his age there might be postoperative complications or hospital acquired infection, and requested for nonoperative management if possible. After further discussion, nonoperative management in the hospital setting was offered, but a strong preference for home-based care was expressed.

While the family medicine team was initially hesitant, after due discussion of risks/benefits, a review of the literature, and telephonic conversation with a trusted surgeon in the referral network, this decision was agreed upon by both the family and the treating family medicine team. The patient was asked to continue oral Ciprofloxacin 500 mg twice daily for 10 days, analgesics, and to take soft, bland diet. Regular home visits were made and the family medicine team was available on call. The family was advised to call the team if there was any worsening of symptoms such as persistent vomiting, pain, continuous fever, or inability to retain fluids.

Over the next 10 days, fever resolved, pain decreased, the patient stabilized. He was found to be depressed as he was not able to perform his regular daily activities without help. The psychologist who is part of the family medicine team counseled him. Over the next few days, the patient improved progressively. By day 15, he had returned to his usual state of health. However, the sixteenth day ultrasound showed irregular wall thickening of gallbladder with minimal pericholecystic fluid. Also, multiple calculi with sludge were present in the gallbladder. A surgical referral was sought and a cholecystectomy was advised after a 6-week interval, a repeat ultrasound showed complete resolution of gallbladder wall thickening and pericholecystic fluid, but gallbladder stones were still present.

The patient is currently active, has deferred surgical management, and is being monitored by the family medicine team. His current diet is relatively fat free, protein rich (pulses and legumes), and has cereals and fruits.

Discussion and Conclusion

Family physicians are frequently called upon to provide home-based care, which has historically been considered a core component of family practice. It can also be a source of professional satisfaction for many doctors.[2] Figure 1 shows the kind of patients who benefit the most from family physicians providing home-based care.

Family physicians working within multidisciplinary teams are ideal for home-care of elderly patients who are home-bound and find seeking care at the clinic difficult. When family physicians visit patients at home, they get a deeper understanding of the patient's family, environment, culture, socioeconomic conditions, thus reduces stress, economic, and social burden for patients and care-givers. This helps in the holistic management of the patient.

Providing home-based care, particularly to elderly patients who may have a serious illness, demands careful consideration of multiple factors and judicious decision-making by primary care physicians in collaboration with the family and specialists.

Early laparoscopic cholecystectomy is the recommended management of ACC,[3] but the mortality among patients over 80 years of age, even with low anesthetic risk, was found to be higher than for groups 50–79 years of age.[4] On the other hand, conservative management has a risk of recurrence of acute cholecystitis and other gallstone-related complications, such as biliary colic, biliary tract obstruction, and pancreatitis.[5] Given these risks, surgery may still be needed despite conservative management initially, with ongoing monitoring, best done by a trusted family physician or family medicine team that has a longitudinal relationship with the patient.

In conclusion, as Ian McWhinney reminds us, "The home is where the family's values are expressed," and "there is deep symbolism in the home visit. It says 'I care enough about you to leave my power base … to come and see you on your own ground."[6] The case above highlights the need, opportunities, and value of providing home-based care by family medicine physicians particularly by utilizing a team approach.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

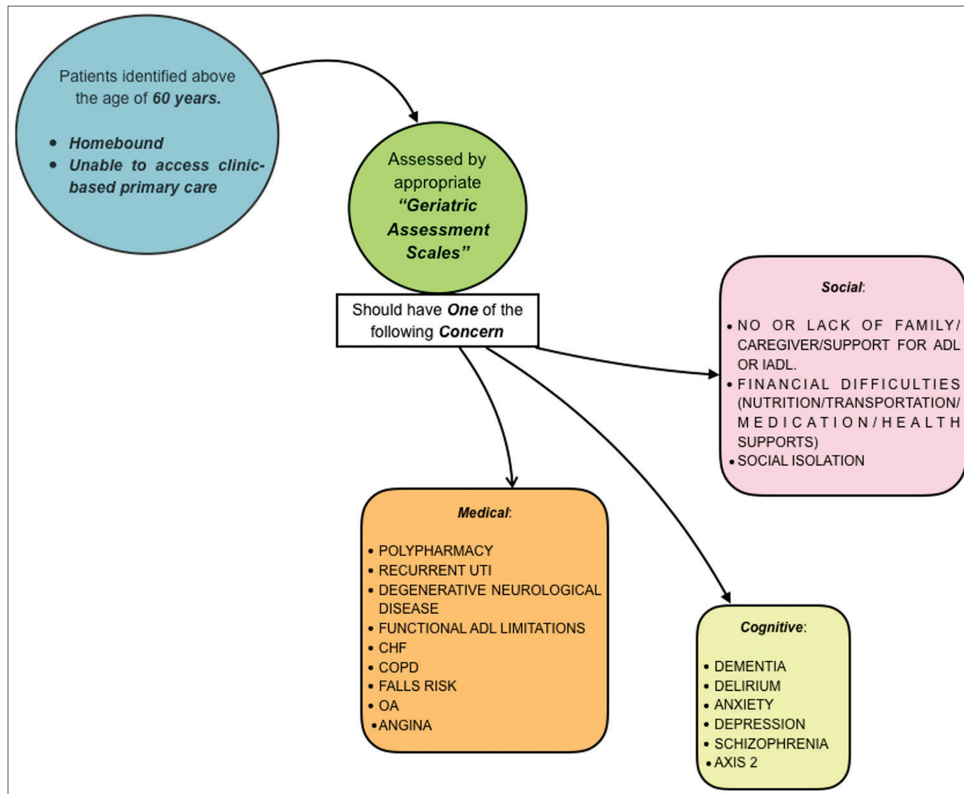

Figure 1: Who Can Benefit From Home-Care provided by family physicians. *UTI = urinary tract infection; CHF = congestive heart failure; COPD = chronic obstructive pulmonary disease; OA = osteoarthritis; ADL = activities of daily living; IADL = instrumental activities of daily living

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Conflicts of interest

There are no conflicts of interest.

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