INTRODUCTION
Warfarin is a common long-term anticoagulant used for thromboprophylaxis for pulmonary embolism, deep venous thrombosis or in patients with mechanical valves. The target INR is between 2 - 3. However, anticoagulation carries a certain risk of bleeding. Other than the commonly reported complications of warfarin therapy like gum bleeding, hematuria, hematemesis, bleeding per rectum; there are case reports of patients developing intraperitoneal and retroperitoneal haemorrhage which may prove fatal. The initial values of INR may be misleading and high index of suspicion should be kept on the basis of clinical picture. If hemoperitoneum is misdiagnosed or resorted to surgery without proper workup, it can prove to be a surgical catastrophe.

Here is a case report of intraperitoneal haemorrhage due to warfarin toxicity producing intestinal obstruction.

CASE REPORT
A 25-year unmarried female, presented on 13th October, 2012 with history of abdominal pain, abdominal distention, vomiting and relative constipation for 8 days and gum bleed for one day. The pain was generalized but more localized in the right iliac fossa and right lumbar region. She had double valve replacement (aortic and mitral) 4 years back for which she was taking warfarin continuously and had left the follow-up for sometime without any self monitoring of INR.

On examination, there was an almost 10 x 7 cm mass palpable in RIF and right lumbar region. Tenderness and rebound tenderness was also present. She first went to a private hospital in Sheikhupura and then to cardiology institute where on presentation her labs showed Hb: 4.4 mg/dl. The INR was 2.0 with PT of 26/12 seconds and APTT > 200 seconds. She was transfused 4 pack red cells and 1 Fresh Frozen Plasma (FFP) after which she was transferred to our institute 2 days later. Her ultrasound showed moderate free fluid in peritoneal cavity with soft internal echoes suggestive of haemorrhagic nature and distended bowel loops. On Echocardiography mitral prosthetic valve was in situ with no evidence of vegetation. The aortic prosthetic valve had mild leak.

After initial transfusions her lab profile was Hb: 10.5 g/dl and INR: 4.8. She was transfused 7 units of FFP’s over next 2 days. She was made nil per oral and passed NGT and Foleys. All anti-coagulation was stopped. Over next 4 days her INR improved to 1.7. Her CT abdomen showed gross intraperitoneal haemorrhage and haemorrhage in the abdominal wall (Figure 1 and 2). She was managed conservatively and stayed admitted for 11 days during which her abdominal pain and distention settled. There was no episode of fresh bleeding. She developed mild jaundice during recovery. When her INR came down to 1.3, she was again started on clexane (enoxaparin). Repeat ultrasound scan showed minimal amount of free fluid in hepatorenal pouch, mild amount of fluid in perisplenic and perihepatic region and moderate amount of debrinous free fluid in abdominopelvic cavity.

She was referred back to cardiac care facility for further cardiac consultation. Two weeks later, on follow-up, the patient was vitally stable and back to normal activity.
DISCUSSION

Warfarin is used as an anticoagulant in thromboembolic conditions therapeutically as well as prophylactically but it carries risk of bleeding as an adverse effect. The target INR has to be kept between 2 - 3. A higher INR may result in spontaneous bleeding in gastrointestinal tract, intracerebral bleeding, hematuria, hemarthrosis or rarely intraperitoneal or retroperitoneal haemorrhage. The higher INR may be a result of higher dose, old age, poor monitoring or most commonly drug interactions. Warfarin interacts with NSAIDs, clopidogrel and cytochrome p450 enzyme inhibitors to cause increase bleeding tendency. Hence close monitoring of INR and dose adjustment is very essential. There are case reports of spontaneous hemoperitoneum with warfarin intake. It can be intraperitoneal or retroperitoneal haemorrhage. Such patients may present with shock or intestinal obstruction. Sometimes bleeding can occur in intramuscular planes such as in anterior abdominal wall or retroperitoneally into ileopsoas muscle and present as ileopsoas hematoma with compression of femoral nerve.

In this case, the patient presented with intraperitoneal haemorrhage due to warfarin intake without monitoring of INR. The haemorrhage produced intestinal compression symptoms and hence caused vomiting and abdominal pain. Such bleeds can be managed conservatively by withholding any further anticoagulant intake, giving intravenous vitamin K (corrects INR in 24 hours), transfusing fresh frozen plasma (15 ml/kg) and whole blood. Alternatively patients can also be given prothrombin complex concentrate or recombinant factor VII (rFVII a). This obviates need for blood typing and avoids transfusion reactions. This patient was managed conservatively in a similar manner and hence improved.

Sometimes the patient may deteriorate due to continuous bleeding or present with shock and may require surgical intervention. Surgery in such cases is especially daunting and may cause problems in operative haemorrhage control. The initial values of INR may be deceiving as bleeding may occur despite normal INR. So a high index of clinical suspicion should be kept to recognise and institute appropriate treatment. CT scan proves to be very benefical in determining the cause of abdominal symptoms with decreased Hb. It can show the areas of hematoma or bleed and can prevent undue surgical intervention.

The only way to prevent such catastrophe is to carefully monitor the INR, prevent overdosage and keep in mind drug interactions while prescribing other drugs to patients on warfarin.

REFERENCES