Case Report

Internal Medicine

Spontaneous Anterior Abdominal Wall Haematoma In A Patient On Clopidogrel Therapy

VENKATA UMAKANT KODALI, SESHU LAKSHMI BORRA, DHARMA RAO VANAMALI, SURENDRA BABU M, MANGYA NAIK

ABSTRACT

Clopidogrel is an oral anti-platelet drug used in patients with myocardial infarction for prevention of thrombotic events. In the present study, we report here a case of a 55-year-old woman who developed a spontaneous anterior abdominal wall haematoma following three months of clopidogrel treatment. The patient developed pain abdomen and swelling in the lower abdominal wall and ecchymotic patch was observed on the lower abdomen. There was a palpable mass in the lower quadrant of the abdomen in midline and on right side. Abdominal ultrasonography revealed a hypoechoic mass in the region of swelling in the anterior abdominal wall. Computed Tomography (CT) of abdomen showed non-enhancing hyperdense mass in the lower abdomen in anterior abdominal wall suggestive of haematoma. The haematoma was evacuated completely. Radiologists should be aware of spontaneous haematomas due to clopidogrel while interpreting ultrasonography and CT images.

Key Words: Clopidogrel, abdominal wall haematoma, ultrasonography, computed tomography

KEY MESSAGE

- Patients on clopidogrel should be monitored for adverse effects especially in the first two to three months after initiation of therapy.

INTRODUCTION

Platelets are involved in the development and progression of peripheral arterial disease,atherosclerotic heart disease and its thrombotic complications. Antiplatelet drugs play a major role in the prevention and the treatment in these patients [1]. Clopidogrel, a new potent oral anti platelet drug, is more effective than aspirin in reducing the risk of thrombotic events in patients with coronary artery diseases, coronary artery stenting, peripheral vascular diseases and cerebrovascular diseases [2]. Most common side effects of antiplatelet drugs are haematological complications and spontaneous haematomas [3]. Clopidogrel is a new potent antiplatelet drug with fewer side effects [4]. Till to date, a few cases of spontaneous abdominal haematoma during clopidogrel treatment have been reported [5],[6]. Here is one such case report of spontaneous abdominal wall haematoma due to clopidogrel treatment.

CASE REPORT

A 55-year-old female patient was admitted to our hospital (Mamata General Hospital, Khammam, Andhra Pradesh, India) with pain and swelling in the lower abdomen for one week. The pain was acute in nature, constant, 4/10 on visual analogue scale and mostly confined to left side of the abdomen.

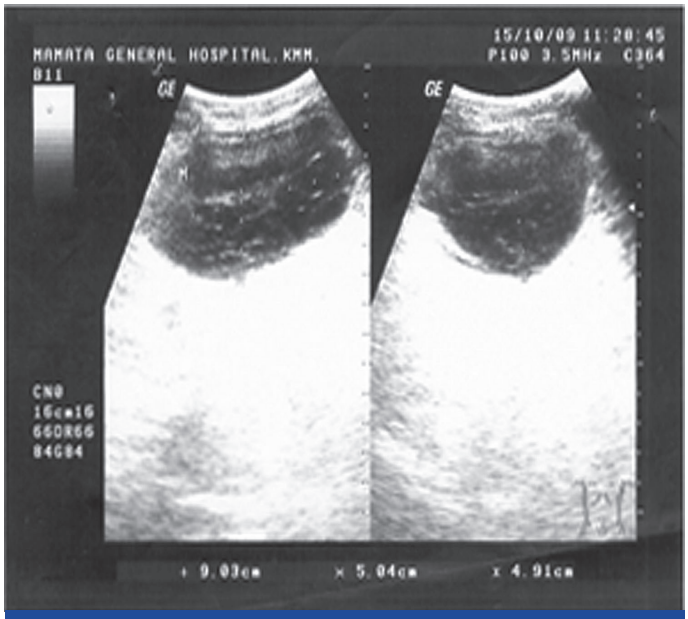
On enquiry, the patient revealed that she was having hypertension for the last 5 years and was on regular anti-hypertensive medications. She had myocardial infarction 3 months back and was in hospital for almost 2 months and was managed conservatively. The patient was put on clopidogrel 75 mg, Atorvastatin 20 mg, metoprolol 25 mg and pantaprazole 40 mg daily. The patient was intolerant to aspirin and had gastric ulcer. The patient doesn't have any complications during the hospital stay.

On clinical examination, her blood pressure was 130/90mm Hg, pulse rate was 90/minute and ecchymotic patch was observed on the lower abdomen with palpable mass (9" X 5").

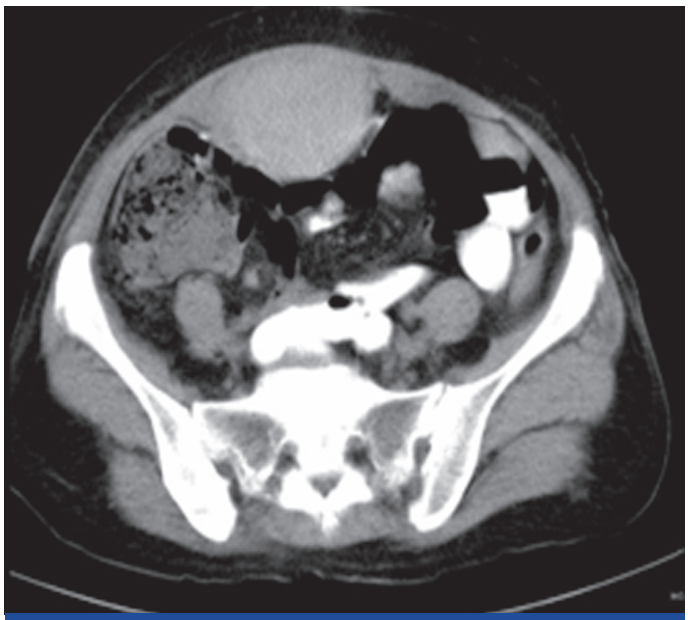
The complete blood count, urine analysis, bleeding time, clotting time, prothrombin time and activated partial thromboblastin time were normal. Platelet count was 1.6 lakh/mm-3 and haemoglobin was 10 gdl-1.

Ultrasonography (GE LOGIQ 500 PRO series, made in Bangalore, India) of the abdomen showed well defined hypoechoic lesion in the anterior abdominal wall in the lower abdomen in midline and towards right side [Table/Fig 1]. No vascularity is noted in the lesion.

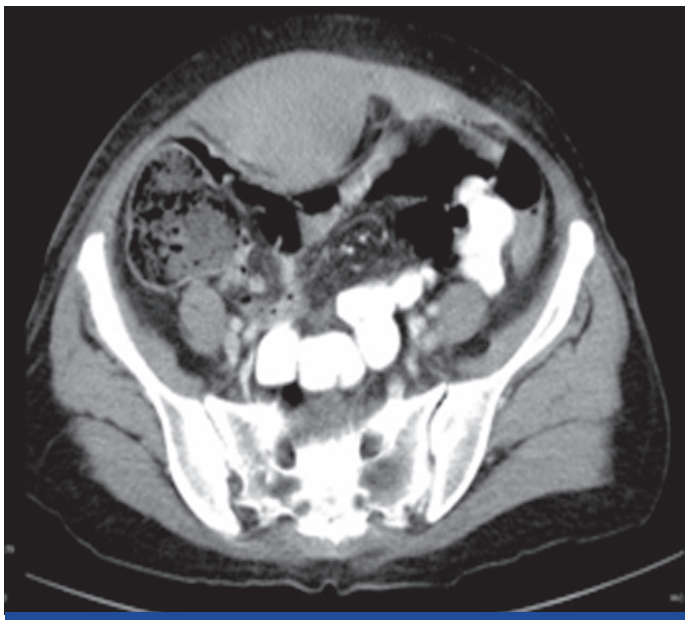
CT scan was done on Siemens Somatom Spirit Dual slice spiral CT (made in Germany) using 100 ml of non-ionic water soluble contrast medium-Iopamidol (Iopamiro 370, manufactured by Bracco by Patheon Italia S.P.A, Italy; imported and marketed by Imaging Products pvt ltd, Mumbai, India) by intravenous route. Informed consent was taken from the patient for contrast CT scan. Non–contrast CT scan showed well circumscribed hyperdense lesion measuring 9x5x6 cm in size and had attenuation value of 70-80 Hounsefield Units (HU) in the lower anterior abdominal wall in midline and towards right side [Table/Fig 2]. Contrast CT showed no enhancement of the lesion on contrast administration [Table/Fig 3]. All the organs in the abdomen were normal. No other abnormal



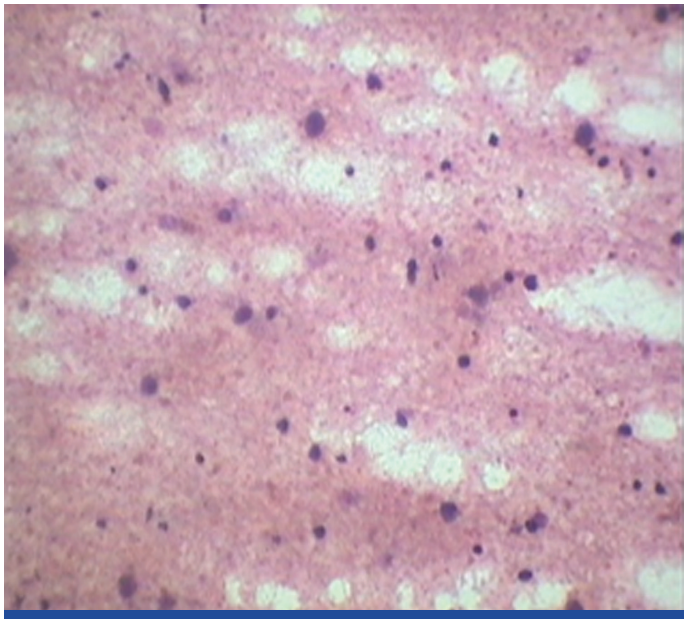
[Table/Fig-1]: Ultrasonography of abdomen showing a well defined hypoechoic lesion in the lower anterior abdominal wall.



[Table/Fig-2]: Non- contrast CT of abdomen showing well defined hyperdense mass measuring 9x5x6cm in the lower anterior abdominal wall.



[Table/Fig-3]: Contrast enhanced CT of abdomen showing a hyperdense mass measuring 9x5x6cm in the lower anterior abdominal wall



[Table/Fig-4]: FNAC of the mass showing degenerated blood cells and macrophages s/o organized haematoma.

finding noted. The diagnosis of anterior abdominal wall haematoma was made. Fine needle aspiration cytology (FNAC) of the mass showed degenerated red blood cells suggestive of organized haematoma [Table/Figh 4]. The haematoma was evacuated completely under local anesthesia. Patient recovered well.

DISCUSSION

Platelets are involved in the development and progression of peripheral arterial disease atherosclerotic heart disease and its thrombotic complication. This is due to adenosine diphosphate receptors on platelet cell membranes. This receptor is named P2Y12 and is important in platelet aggregation and the crosss linking of platelets by fibrin [7].

Antiplatelet therapy plays an important role in the treatment of patients with coronary artery diseases, peripheral vascular diseases and cerebrovascular diseases [8]. Antiplatelet therapy significantly reduces the incidence of death and cardiovascular events and prevents progression of local disease in these patients.

Antiplatelet drugs block platelet aggregation and activation and include aspirin, ticlopidine and clopidogrel [9]. Aspirin is the traditional antiplatelet agent used in patients with coronary artery diseases, complications continue to occur in patients on aspirin therapy. Clopidogrel is a potent oral antiplatelet agent and is currently one of the most commonly used drugs in the treatment of ischaemic heart disease to prevent thrombotic complications [10]. With a simple regimen of 75 mg once daily indicated for all patients wih symptomatic atherosclerosis, clopidogrel is safe and effective antipatelet drug with ease of use in clinical practice [2].

Clopidogrel is a member of class of drugs known as thenopyridines. The active moiety of clopidogrel is the thiol group of the active metabolite, which binds to the adenosine diphosphate receptor on platelet cell membrane. Clopidogrel irreversibly blocks adenosine diphosphate receptors on platelet cell membrane [7]. The blockade of this receptor prevents platelet aggregation by blocking the glycoprotein IIb/IIIa pathway.

Haematologic complications and bleeding are the most common complications of antiplatelet agents. Among the thienopyridines, clopidogrel is considered to be a safer alternative to ticlopidine due to its decreased incidence of haematologic adverse effects.

Haematologic adverse effects of clopidogrel includ thrombotic thrombocytopenia purpura, neutropenia, acquired haemophilia, isolated thrombocytopenia or idiopathic immune thrombocytopenia and thrombotic thrombocytopenia purpura with haemolytic uremic syndrome [3]. Cutaneous reactions, arthritis, hypersensitivity and serum sickness like reactions are other rare adverse effects of clopidogrel [11].

CONCLUSION

Clopidogrel is used as an antiplatelet agent in patients with coronary artery disease, cerebrovascular disease, and peripheral vascular disease for prevention of thrombotic events. Patients treated with clopidogrel should be monitored for adverse effects especially in the first two to three months after initiation of therapy. Although spontaneous haematomas are rare, clinicians prescribing clopidogrel drug should be aware of the possibility of this adverse reaction.

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