CASE REPORT

Deep Vein Thrombosis Following Laparoscopic Hysterectomy in a Nulliparous Woman

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Abstract A nulliparous woman aged 45 years was referred to us with painful swelling in left lower limb. She underwent laparoscopic hysterectomy for menorrhagia 12 days prior to the admission. The laparoscopic surgery was completed in 90 min without blood loss and blood transfusion. The size of the uterus was approximately 12 weeks. Duplex scan of the left lower limb confirmed thrombosis of the left external iliac vein, femoral vein, popliteal vein and tibial veins. On examination the laparoscopic puncture wounds healed well. She was hospitalized for initial anticoagulation with low molecular weight heparin (Enoxapain 1 mg/kg body weight twice daily) and compression bandages. Histological examination of the hysterectomy specimen was noted to be benign (Adenomyosis and cervical Leiomyoma). She responded to anticoagulation therapy and was discharged with an advice to attend the follow up clinic for long term anticoagulation advice for the next 6 months to prevent recurrent thromboembolic episodes.

Keywords DVT (deep vein thrombosis) · Laparoscopy · Hysterectomy

Introduction

Hysterectomy is a common gynecological operation performed in women to solve the benign and malignant problems of uterus. Abdominal hysterectomy is considered to be a major operation and more risky than vaginal hysterectomy or laparoscopic hysterectomy. Venous thrombosis and pulmonary embolism are known to occur in major abdominal surgeries which last longer than 2 h. Schorge et al. [1] noted that clinically significant VTE following gynecological surgery is rare in the absence of malignancy, prolonged surgical anesthesia or hypercoagulable factors. Gynecological laparoscopic procedures are considered to be less invasive and early ambulation is possible. Ageno et al. [2] found that gynecological laparoscopy in non-cancer patients is a low risk procedure for post operative VTE [2]. Here we are reporting extensive deep vein thrombosis (DVT) after total laparoscopic hysterectomy in a nulliparous woman which is considered to be uncommon complication.

Case Report

A 45 year old woman was referred to us with painful swelling of the entire left lower limb. She noticed pain in

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the left lower limb 8 days after total laparoscopic hysterectomy operation which was completed in 90 min. The operation was done to treat menorrhagia. The size of the uterus was slightly bulkier (>12 weeks). On the 12th post operative day she noticed swelling of the left leg and duplex scanning showed proximal DVT involving the external iliac, femoral popliteal and tibial veins. She was moderately built and moderately nourished. The uterine biopsy showed adenomyosis and cervical polyp but there was no malignancy. She was nulliparous and she took some treatments for infertility when she was 25 years old. There were no known hypercoagulable conditions in her or in her family. She did not have any symptoms of pulmonary embolism. She moved out of bed on first post operative day following the laparoscopic hysterectomy. The pressure of pneumoperitoneum was maintained 12–15 mm of Hg and the patient was operated in semi lithotomy position. There were no untoward events during the surgery. She was given low molecular weight heparin (Enoxaparin 60 mg twice daily) subcutaneously and observed for 2 days in the hospital. She applied compression elastic bandages. The swelling and pain promptly decreased and she was discharged to go home on request after 2 days. She was advised to continue medication and attend the out patient clinic for follow up advice on regular anticoagulation therapy. She is advised oral anticoagulation for the next 6 months to prevent the recurrent venous thrombosis or embolism in the follow up clinic.

Discussion

It is a common perception that DVT and pulmonary embolism are rare in gynecological abdominal non cancerous surgeries and laparoscopic surgeries in our country. In our patient who is moderately built and moderately nourished DVT was noticed 12 days after the laparoscopic hysterectomy though she started walking (actively mobile) on first post operative day. There was no malignancy in the biopsy and there was no history of prior DVT. In the multi center study performed by Ageno et al., screening for DVT

was done with ultrasound on day 7 and day 14 after the surgery and none of the 266 non cancerous patients developed DVT.

When large uterine myomas are compressing the pelvic veins they develop venous thrombosis which can be suspected and treated preoperatively [3]. In many studies (12 studies/945 patients) control subjects without prophylaxis have shown 16% incidence of DVT after gynecological surgeries. The maximum relative reduction (56%) of the DVT was noted with low dose unfractionated heparin therapy (LDUH) in gynecological patients. It is interesting to note the natural course of post operative venous thrombo-emboli in gynecological oncology from the studies done with I¹²⁵ labeled fibrinogen leg counting in 328 patients. In 52% of the patients DVT was noted initially in the calf and out of that 27% dissolved spontaneously, 4% progressed to proximal veins and 4% developed pulmonary emboli. Only 9 out of 328 developed the femoral vein DVT without calf vein DVT and one patient had PE from internal iliac vein [4]. Clinically significant lower limb venous thrombosis may be relatively more common in cancer surgeries but is rare after laparoscopic gynecological surgery for benign pathologies. It should be suspected when ever leg swelling is noted within 2–4 weeks after such surgeries and treated promptly.

References

1. Schorge JO, Goldhaber SZ, Duska LR, et al. Clinically significant venous thromboembolism after gynecologic surgery. *J Reprod Med.* 1999;44(8):669–73.
2. Ageno W, Maucicoli E, Dentali F, et al. Incidence of venous thromboembolism following gynecologic laparoscopy: a multi centre, prospective cohort study. *J Thromb Hemost.* 2007;5(3): 503–6.
3. Stanko CM, Severson MA II, Molpus KL. Deep venous thrombosis associated with large Leiomyoma uteri. A case report. *J Reprod Med.* 2001;46(4):405–7.
4. Clarke-Pearson DL, Synam IS, Coleman RE, et al. The natural history of post operative venous thromboemboli in gynecologic oncology: a prospective study of 382 patients. *Am J Obstet Gynecol.* 1984;148(8):1051–4.