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GYNAE SPECTRUM

Dear Doctor,

Greetings from Micro Labs. We are happy to bring you "**Gynae Spectrum**", which contains latest and interesting news in the field of Obstetrics and Gynaecology.

This issue contains:

- Treatment of Uterine Leiomyomas for 12 Months With Elagolix.
- Caesarean Scar Hidradenitis Suppurativa - A case report.
- An Advanced Diagnostic Ultrasound

Should you require any article or, medical information, please feel free to contact us
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Looking forward to your valuable feedback.

Best Regards,

Medical Team, Micro Labs Limited

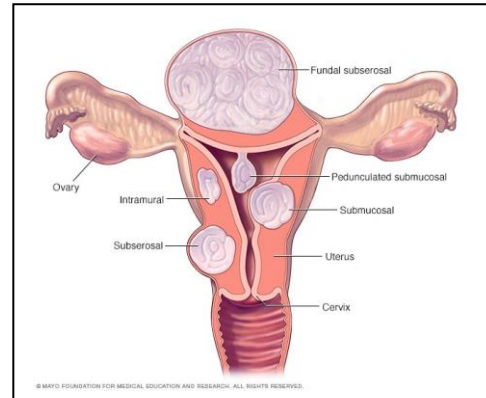
1. Treatment of Uterine Leiomyomas for 12 Months With Elagolix.

Uterine leiomyomas is one of the most common neoplasms of the uterus. Most common symptoms produced are heavy menstrual bleeding. Leiomyomas have major effect on a woman's quality of life. Hysterectomy is the mainstay of leiomyoma treatment.

Treatment involves oral contraceptives, progestins, tranexamic acid, and gonadotropin-releasing hormone agonists (i.e. leuprolide acetate) are often used to provide symptomatic relief.

Elagolix is an oral gonadotropin releasing hormone antagonist that results in dose dependent suppression of gonadotropins and ovarian sex hormones and is approved for the management of moderate-to-severe pain related to endometriosis.

Objective of the current study was to evaluate the safety and efficacy of elagolix with hormonal add-back therapy in heavy menstrual bleeding with Leiomyomas.¹



Methods:

Randomized, double-blind, placebo-controlled, Phase 3 trial involving 200 patients treated with Elagolix 300 mg twice daily alone and Elagolix 300 mg twice daily with hormonal add-back therapy (estradiol 1 mg and norethindrone acetate 0.5 mg once daily) in women.

Primary endpoint assessed was the percentage of women with both less than 80 mL menstrual blood loss during final month and a 50% or greater reduction in menstrual blood loss from baseline to final month.

Efficacy endpoints included the percentage of women with amenorrhea at final month and control of bleeding (no bleeding, up to 1 day of spotting allowed) at final month and change from baseline in the Uterine Fibroid Symptom and Health-Related Quality of Life Questionnaire scores at month 6.

Safety evaluations were done that included adverse events and bone mineral density changes.

Results:

Primary endpoint in elagolix group with add-back group was 87.9% (95% CI [83.4–92.3]). Most frequently reported adverse events with up to 12 months of elagolix plus add-back therapy were hot flush (6.9%), night sweats (3.2%), headache (5.5%), and nausea (4.1%).

Percent decrease in bone mineral density from baseline to extension month 6 were

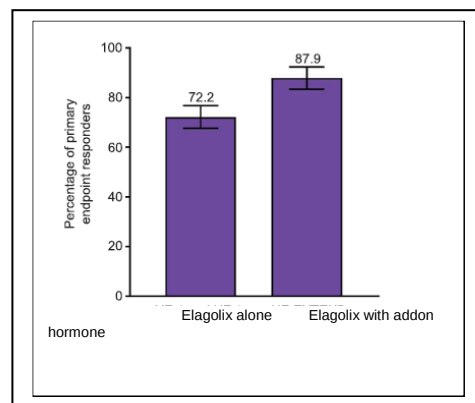
significantly less with elagolix plus add-back therapy than with elagolix alone.

Mean reductions in menstrual blood loss seen at month 6 were sustained through an additional 6 months of elagolix with add-back therapy.

Patients with More than half of the women who received up to 12 months of elagolix with add-back therapy achieved amenorrhea (64.6%, 95% CI [58.0–71.1]) and control of bleeding.

Elagolix with add-back hormonal treatment was also associated with improved quality of life based on mean changes from baseline in Uterine Fibroid Symptom and Health Related Quality of Life Questionnaire scores.

Patients who received up to 12 months of elagolix treatment, the overall rate of either or both hot flushes and night sweats were reported by 7.8% of women in the elagolix with add-back group and 5.1% in the elagolix-alone group.



Discussion:

Elagolix is a potent non-peptide GnRH antagonist that acts by a competitive block of the GnRH receptor. The biological effect is a dose-dependent inhibition of gonadal axis, without a total suppression of estradiol concentrations.

Elagolix is rapidly absorbed through the gastrointestinal tract following oral administration, and it achieves the peak plasma concentrations in 30–60 mins.

Studies have shown that it is efficacious in the treatment of Uterine leiomyomas.¹

Conclusion:

Elagolix 300 mg alone or along with hormonal therapy is effective in the treatment of heavy menstrual bleeding in Leiomyomas.

Reference:

1) Simon JA et al. Elagolix Treatment for Up to 12 Months in Women With Heavy Menstrual Bleeding and Uterine Leiomyomas. Obstet Gynecol. 2020;135(6):1313-1326.

2. Trousseau's Syndrome with Widespread Thromboembolisms- A case report.

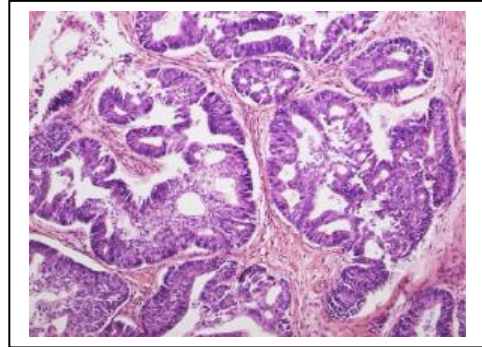
A case of cerebral infarction and pulmonary embolism due to multiple venous thrombosis was reported by Trousseau in a patient with gastric cancer.

Trousseau's syndrome can cause widespread emboli (multiple cerebral infarctions, cerebellar infarction, pulmonary embolism, myocardial infarction, occlusion of retinal artery, and kidney infarction) in a patient with ovarian cancer. Current case describes the same.¹

Case presentation:

A 50 year old woman gravida 0 did not have notable medical history. Laparoscopic right salpingoophorectomy and left cystectomy were performed for bilateral ovarian endometriomas, which were both pathologically diagnosed as benign. Subsequent to surgery, patient underwent regular treatment with dienogest. After Six months she presented with left lower abdominal pain and expressive aphasia.

- A 8 cm diameter cyst was formed in the left ovary, with a solid ingredient and surrounding ascites. Contrast enhanced computed tomography (CECT) revealed peritoneal dissemination, multiple lymph node metastases, liver metastasis, pulmonary embolism, and deep venous thrombosis of the lower limbs.
- Magnetic resonance imaging (MRI) revealed infarctions occurred at multiple locations in the bilateral cerebral hemisphere centered on the left frontal lobe and in the right cerebellar hemisphere.
- Patient was diagnosed with advanced ovarian cancer, accompanied by Trousseau's syndrome. She was hospitalized (Day 0) and received 10,000 units of heparin per day intravenously. On Day 10, she developed a left visual field deficit due to occlusion of the left retinal artery.
- On Day 21, she had vertigo and vomiting. MRI showed new infarctions of the cerebellar vermis, left caudate nucleus head, and cerebral subcortex.
- On Day 30, the first chemotherapy was administered (paclitaxel 175mg/m² and carboplatin AUC5). On Day 35, a blood transfusion was performed for anemia due to digestive tract bleeding. On Day 40, she had chest pain. Myocardial infarction was diagnosed
- In the presence of gastrointestinal bleeding, Stent treatment must be combined with antiplatelet therapy could not be performed.
- Patient was administered an increased dose of heparin (20000 units per day) and isosorbide dinitrate. On Day 45, paralysis of the right upper and lower limbs appeared. Brain MRI showed occlusion of the left middle cerebral artery.
- On Day 50, the second chemotherapy was administered (paclitaxel 175mg and carboplatin AUC5). On Day 66, she died due to multiple organ failure with no improvement of thrombotic symptoms.
- Autopsy showed 10 × 6 cm solid mass in the left ovary, and it was identified as an endometrioid carcinoma G2 . Ovarian cancer invaded the uterus, bladder, rectum, sigmoid colon, small intestine, retroperitoneum, and left ureter.
- Metastases were found in the liver, spleen, lung, retroperitoneal, and perigastric lymph nodes.
- Severe peritonitis and pleurisy were found with bloody ascites (4000 ml) and bloody





pleural effusion (left 400 ml, right 1000 ml). presence of a pulmonary embolism was also seen.

- In the heart, a 2.5cm old chronic infarction with massive thrombus in the left ventricular apex was identified, and thromboembolism and recanalization in the anterior descending artery were noted.
- Infarct of 2 × 1cm size at the lower pole of the right kidney was present. Venous thromboses identified filling the left and right common iliac veins, respectively, and there was also a 5mm diameter thrombus in the portal vein.

Discussion:

Factors like Mucin, tissue factor, and cysteine proteinase are possible substances released from tumors to enhance coagulation.

Patients with ovarian cancer often have thromboembolism many are clear cell carcinomas which express a large amount of tissue factor. D-dimer level increases in patients with Trousseau's syndrome.

In current case D-dimer showed elevated levels (58.3 µg/ml). CA19-9, a marker for ovarian mucinous tumors, also showed abnormally elevated levels (54,206 U/ml). embolism of the pulmonary artery must have been caused by the flow of intrailiac thrombi.

The patient had no vegetation in the valve, and there was no finding of nonbacterial thrombotic endocarditis but she had mural thrombus in the apex of the left ventricle Mucin produced from the mucinous tumor is associated with thrombus. Trousseau's syndrome is formed in the lower limbs and heart due to hypercoagulability caused by tumors.¹

Conclusion:

A case of Trousseau's syndrome with various thrombotic symptoms such as multiple cerebral infarctions, myocardial infarction, and pulmonary embolism can occur due to ovarian cancer.

Reference:

1)Kobayashi H et al. A Case of Trousseau's Syndrome Accompanying Ovarian Cancer with Widespread Thromboembolisms. Case Reports in Obstetrics and Gynecology. 2020; 3738618: 1- 4 pages

IN FOCUS

An Advanced Diagnostic Ultrasound

A latest ultrasound has been released by a company that produce high quality ultrasound images. The system can run a dozen or so intelligent software features that fine tune image quality in specific situations and provide measurements, assessments of blood flow, and other useful metrics.

It has another advantages like color Doppler which looks like 3D, making it more intuitive to recognize blood vessels.

Better image quality is also seen. Tissue stiffness within the liver, breast, and prostate are measured. TAI, TSI technology measures tissue attenuation and scatters ultrasound waves, parameters that are particularly useful in assessing fatty liver.

System also allows higher quality scanning in difficult-to-image windows. It is beneficial for body imaging, vascular imaging, and other advanced imaging using the built in Advanced Intelligence.



Available at : <https://www.medgadget.com/2020/06/samsung-releases-rs85-prestige-advanced-ultrasound.html>. Accessed on 19-06-2020.



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