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PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1239872>Available online at: <http://www.iajps.com>**Research Article****OVARIAN CYSTECTOMY IN ENDOMETRIOMAS BY
LAPAROSCOPY AS FREQUENTLY REPEATED ADNEXAL
MASS IN REPRODUCTIVE SYSTEM IS ENDOMETRIOMA**¹Muhammad Rumais Mahde, ²Dr. Kinza Imran, ²Dr. Danish Ahmed¹Medical Officer BHU Chakki Pindigheb Attock²Medical Officer, Basic Health Unit 111 JB District Faisalabad**Abstract:**

We aimed to evaluate the impact of topical hemostatic sealants and bipolar coagulation during laparoscopic ovarian endometriotic cyst resection on ovarian reserve by comparing the rates of decrease in anti-Müllerian hormone. Laparoscopy has become the most common procedure in recent set-ups. It is now a major diagnostic as well as therapeutic modality for infertility, endometriosis, extrauterine pregnancy and benign ovarian tumors. The aim of the study was to share the experience of gynecological laparoscopic surgeries. Frequently repeated adnexal mass in reproductive system is endometrioma. Therapies are partially silent in the treatment of larger than 4 cm endometriomas and its removal is recommended for the pain reduction and rapid improvisation in the management of ovarian endometriomas. Generally agreed decision is conception rate. This process can be potentially difficult because of the dense adherence of the capsule. Surgical laparoscopy is among one of the choices in treatment as a conservative treatment approach combined modified cystectomy is preferred technique. It can be damaging for ovary and with additional risk factor it may also pose incomplete ablation.

Keywords: *Cystectomy, Combined technique, Laparoscopy and Endometrioma.***Corresponding author:**

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INTRODUCTION:

Common site for endometriosis are ovaries. Common most adnexal masses include endometrioma. Gynecologists often face the problems of ovarian mass and endometrioma accepted with its controversies and malignant transformation risk fertility effects and treatment modalities. In the treatment of endometriomas very commonly used in the method of laparoscopy [1]. Ovarian endometrioma is a common disease lesion among women with endometriosis. Regardless of its symptoms, surgery is most frequently chosen for its treatment because medical treatment alone is inadequate. In addition, a likelihood of malignant change in this disease is not negligible, and European Society of Human Reproduction and Embryology (ESHRE) guidelines recommend that histology should be obtained to exclude malignancy in cases of endometrioma of more than 3 cm in diameter. Because this disorder is commonly diagnosed in women of reproductive age, laparoscopic excision of endometrioma, instead of oophorectomy, is applied for most cases. When it is done in infertile woman, laparoscopic excision is also known to improve fertility [2].

One of the most frustrating aspects of treating endometrioma with laparoscopic excision is disease recurrence after surgery. When planning a laparoscopy, gynaecologists should be aware of each individual's expected likelihood of recurrence as well as her symptoms and desire for current or future fertility. By having information about factors that may be related to a recurrence of ovarian endometrioma, gynaecologists will be able to distinguish patients at risk, optimize the timing of laparoscopy and plan pre- and post-operative management properly [3, 4]. However, little study has been done to analyse various variants that may have impacts on a recurrence of endometrioma after laparoscopic excision.

MATERIAL AND METHOD:

With the help of histological identification and lesions visualization definite endometriosis is diagnosed. To identify the severity of pelvic endometriosis sonography of transvaginal is considered as an effective diagnostic tool. Poor cyst wall vascularization with or without internal or external septa, hypoechoic cyst, homogenous or round morphology can be obtained by ultrasonography about ovarian endometriomas. Ninety-five percent occurrence of the low level diffused echoes is observed in endometriomas. It also shows adherence to the walls of the pelvic. Useful indicator is its immobility. Women were diagnosed with endometriosis about the association of severity in the hormone serum level of lower anti-Mullerian. In the patients of severe endometriosis with controlled stimulation of ovaries assistance can

be taken from this information [5]. Markers of putative serum such as CA-125, leptin, factor of migration inhibitory and monocyte chemoattractant protein ca enhance the capability of diagnostic by an accuracy of ninety-four percent and capability of seventy-three percent [6].

For the differential diagnosis in the endometriosis cyst a marker of HE-4 also known as a human protein-4 can be utilized. It is actually a new biomarker for the diagnosis of ovarian cancer. A combination of CA-125 and HE-4 can differentiate malignant ovarian tumors from endometriosis ovarian cysts effectively [7]. In its advantage it is also used for the identification of early level of tubal cancer, broadline ovarian tumors and epithelial ovarian. Patients undergo operation by the gynecologists after laparoscopy as the value implication of HE-4 is different in a benign endometrioma instead of cancer of ovarian. Similar diagnostic results were observed in both the markers for the identification epithelial ovarian cancer on the defined clinical clues (CA125 35 U/mL; HE4 70 pM) with no elevation HE-4 in endometriosis. Women were observed in the concentration of HE-4 tumor markers, serum samples and CA-125 for numerous types of ovarian, endometrial and endometriosis cancer [6]. On the basis of this research higher mean concentration of serum HE-4 was observed in endometrial patients and ovarian respectively (99.2 pM, $p < 0.001$) and (1125.4 pM, $p < 0.001$) respectively. It was not observed in ovarian endometriomas, other metrizoates and in comparison, to healthy controls respectively (46.0 pM), (45.5 pM) and (40.5 pM). Concentration of serum He-4 is a positive and valuable marker that can differentiate the patients of ovarian of endometriosis cysts and ovarian distortions. Ovarian endometriosis treatment, staging and diagnosis are few advantages that can be obtained through laparoscopy.

LAPAROSCOPY FOR ENDOMETRIOMAS

Indications for surgery

Following five complexities have an association with non-surgical approach:

- Pelvic abscess development and endometrioma rapture risk
- Malignancy of early stage occult absence
- Retrieval difficulties in the course of oocyte
- Endometrioma content with follicular-fluid contamination
- Endometriosis progression [7]

Clear cell carcinomas and eotomariid are substances of ovarian cancer with increases risk factor reflected in endometriosis. Association of endometriosis is reflected in the indication of endometrioid ovarian carcinomas and clear cell ovarian 40 and 50 percent respectively. A rise is observed in the both clear cell

carcinomas and endometrioid. An involvement of patho-physiological mechanism is also associated for the progression endometriosis and in the transformation of ovarian neoplasia [9]. Fertility cannot be improved through medical therapies. In the case of endometriosis in women for effective fertility and pain treatment surgical operation is recommended. Deep dyspareunia and pelvic pain is also improved through this process. Draining the endometrioma or partially resecting its wall is inadequate, because the endometrial tissue lining the cyst can remain functional and may cause the symptoms to recur. Pain is reduced and incidental pregnancy is improved through ovarian cystectomy. In comparison to coagulation and drainage laparoscopic cystectomy improves fertility with ovarian endometriomas greater than 4 [11]. Laparoscopy is beneficial in the simultaneous allowance of ovarian endometriosis treatment, staging and diagnosis. The major surgical methods are aspiration guided by laparoscopy and USG-guided laparoscopic surgery with the help of fenestration, cystectomy, coagulation, radical therapy and adenectomy [12].

Surgical technique

Larger than four-centimeter endometriomas is to be removed is accepted by all experts. It is done of the reduction of pain and improvement of rate of spontaneous conception in women. Relatively small endometriomas of 2 – 4 centimeters in size never halts the act of fertilization in women and in Vetro Fertilization [13]. Decisions taken for the removal of cyst larger than 3 – 4 centimeters are arbitrary in nature. No evidence is available to prove one or the other [10]. No surgery is required in four or even in five-centimeter endometriomas if the growth of follicles is unharmed. Every implant, recurrence chance, adhesions postoperative and resect are removed in the objective of surgery for endometriosis to bring things to normal physiologic and anatomic state. Laparoscopy is the only option that is suitable for endometriomas. Laparoscopy remains the first conservative choice for endometriotic cyst treatment.

In the current research paper, endometrioma fluid instillation in addition with copious saline lavage has strong link in the formation of adhesion [14]. Laparoscopy and Laparotomy are the possible available surgical resections for the treatment of endometriomas. It also eradicates endometriosis effectively. In case, resection of endometriomas is not enough radical reoccurrence rate is highly accepted.

Fenestration and ablation (fulguration or vaporization)

Endometriomas < 2 centimeter or implants are treated with electrodes, laser, biopsy forceps, excised through scissors, laser ablated or

coagulated. From the surface of ovarian every scar and lesions are to be removed for its complete treatment. High recurrence risk is major laparoscopic issue in 80 – 100 percent of the cases [15]. Cyst capsule ablation and fenestration of laparoscopic cyst is an alternative strategy. Improvement in pelvic pain has been observed through patient's satisfaction. Laser vaporization, ablation or fenestration of endometriomas in the absence of pseudo capsule excision in significantly linked with elevated risk of recurrence of cyst. According to Alborzi, during pregnancy better results are linked with cystectomy of laparoscopic ovarian. It is better than coagulation and fenestration with decreased chances of surgery in bigger cysts for pain relief [16]. Laparoscopy remains the first conservative choice for endometriotic cyst treatment.

Hydro dissection is one of the alternative for the plane between ovarian stroma and cyst wall [17]. According to Marconi and Canis, after cystectomy ovarian is not affected through IVF [18, 19]. Cystectomy has adverse effects on the response of ovarian is observed through numerous trials. According to Hart, favorable results are formed after the operation of endometriomas in the form of excisional surgical procedure in comparison to ablation and drainage for stimulation response of ovarian, subsequent pregnancy, pain and recurrence factor [20]. Contrarily according to Muzii, recognizable ovarian tissue was inadvertently excised together with the endometriotic cyst wall in most cases during stripping for endometrioma excision [21]. Near to ovarian tissue and hilus in 69 percent of patients primary and secondary follicles along with primordial removal of ovarian tissue was carried out. In the 60 percent of the samples primordial or no follicles were observed distant from hilus. Near to ovaries hilus clear plane is absent. However, morphological difference is present near to endometrioma wall in comparison to normal tissue of ovarian; follicular pattern is not visible in the normal ovaries [22]. According to Argentite ovulutin induction cycles after cystectomy count of follicular is less in the operated ovaries. According to Ho, it is concluded that poor response of ovarian was induced in the ovarian hyperstimulation control [23]. In regard to operated ovary damage cystectomy laparoscopy is questioned.

Risk in the case of incomplete and excessive surgery respectively recurrence of subsequent endometriomas and normal ovarian cortex damage is observed with endometriomas. For the solution of these issues Donnez stated a relatively advanced method which is a mixture for the control of endometriomas through laparoscopy. Further damage to the tissue of ovarian can occur in cyst wall excision in left parenchyma by coagulation of

electro-surgical nature. In the utilization of appropriate methods identification of small vessels is possible, which can be coagulated with bipolar forceps in the condition of less than 0.2-millimeter damage of thermal nature [20]. Regrettably, high rate of adhesion reformation and formation is linked with the endometriosis pelvic surgical procedure. After the completion of endometriosis laparoscopic surgery rate of 80 – 100 percent formation of adhesion is observed. For the reduction of adhesion formation, the techniques of surgery need improvement. Potential use of anti-adhesion medicines can also reduce the rate of adhesion formation. Gels that reduce adhesion are preferred after operation for reduction of adhesion [24].

CONCLUSION:

Frequently repeated adnexal mass in reproductive system is endometrioma. Therapies are partially silent in the treatment of larger than 4 cm endometriomas and its removal is recommended for the pain reduction and rapid improvisation in the management of ovarian endometriomas. Generally agreed decision is conception rate. This process can be potentially difficult because of the dense adherence of the capsule. Surgical laparoscopy is among one of the choices in treatment as a conservative treatment approach combined modified cystectomy is preferred technique. It can be damaging for ovary and with additional risk factor it may also pose incomplete ablation. Common site for endometriosis are ovaries. Common most adnexal masses include endometrioma. Gynecologists often face the problems of ovarian mass and endometrioma accepted with its controversies and malignant transformation risk fertility effects and treatment modalities. In the treatment of endometriomas very commonly used in the method of laparoscopy. It is necessary to avoid or reduce endometrioma spillage in the act of surgical resection. Also avoid the requirement for suction and irrigation. Before the rapture of endometrioma fluid aspiration and careful dissection is utilized. Spillage can be avoided through a device that collects endometrioma fluid called sterile bag. It is mostly observed as a method in surgeries. Stripping process used during excision ovarian cyst laparoscopy preserves organs. In the case of non-endometriotic cysts few of the tissues were excised inadvertently in endometriotic cyst-wall. An approximate thickness of 1 – 2-millimeter tissues were included in the specimen excised by pseudo-capsule cysts. No morphologic features in the normal ovarian tissue were characterized. In the case of > 4-centimeter ovarian endometrioma which is confirmed through the histological diagnosis ovarian cystectomy laparoscopic is recommended. It improvises the follicles chances and decreases the infection risk, in addition the response of ovarian is possibly improved.

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