

## Original Research

# ASSESSMENT OF OVARIAN CYSTS- A CLINICAL STUDY

**Dr. Esha Khanuja**

Associate Professor Department of Obstetrics and Gynaecology, Swami Vivekanand Subharti University, Meerut, Uttar Pradesh, India

**Corresponding author**

**Dr. Esha Khanuja**

Associate Professor Department of Obstetrics and Gynaecology, Swami Vivekanand Subharti University, Meerut, Uttar Pradesh, India

Received: 16 November, 2022

Accepted: 21 December, 2022

### ABSTRACT

**Background:** Ovarian cysts are fairly common in neonates, resulting from exaggerated follicular development stimulated by the maternal hormones. The present study was conducted to assess ovarian cysts.

**Materials & Methods:** 64 cases of ovarian cysts were recorded. Clinical features such as type, marital status, location, side and clinical findings etc. were recorded.

**Results:** Age group 20-25 years had 30, 25-30 years had 20 and >30 years had 14 cases. The difference was significant ( $P < 0.05$ ). Common type was dermoid in 16, functional in 22, benign cyst adenoma in 5, endometriosis in 14, malignant in 4 and complicated in 3 cases. Patients were single in 24 and married in 40. Type was ovarian in 54, para ovarian in 6 and retroperitoneal in 4 cases, side was left in 30 and right in 34. Clinical features were abdominal pain in 32, vaginal bleeding in 58, abdominal swelling in 64 and infertility in 5 cases. The difference was significant ( $P < 0.05$ ).

**Conclusion:** Common type was dermoid, functional, benign cyst adenoma, endometriosis, malignant and complicated. Most common location was ovarian.

**Key words:** Ovarian cyst, Endometriosis, Women

### INTRODUCTION

Ovarian cysts are fairly common in neonates, resulting from exaggerated follicular development stimulated by the maternal hormones.<sup>1</sup> The incidence of ovarian cysts decreases in early childhood and increases again as puberty approaches.<sup>2</sup> In adolescents, simple cysts are very common, resulting from anovulation and persistence of the remaining follicle and therefore may be associated with irregular bleeding. Some of these cysts are a symptomatic or cause only mild symptoms, and these can be detected incidentally by sonography.<sup>3</sup>

Ovarian masses are categorized as functional cysts, benign neoplasms, or malignant neoplasms. In a review of females under the age of 21 undergoing surgery for an adnexal mass, 57.9% of the cases were diagnosed with an ovarian cyst.<sup>4</sup> The prepubertal adolescent is at risk of developing functional cysts due to the failure of involution of follicles. Prepubertal cysts are commonly caused by gonadotropin stimulation of the ovary by the immature hypothalamic-pituitary axis.<sup>5</sup> The present study was conducted to assess ovarian cysts.

### MATERIALS & METHODS

The present study comprised of 64 cases of ovarian cysts. All patients were informed regarding the study and their consent was obtained.

Data such as name, age, etc. was recorded. A thorough clinical examination was performed. Clinical features such as type, marital status, location, side and clinical findings etc. were recorded. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

## RESULTS

**Table I: Distribution of patients**

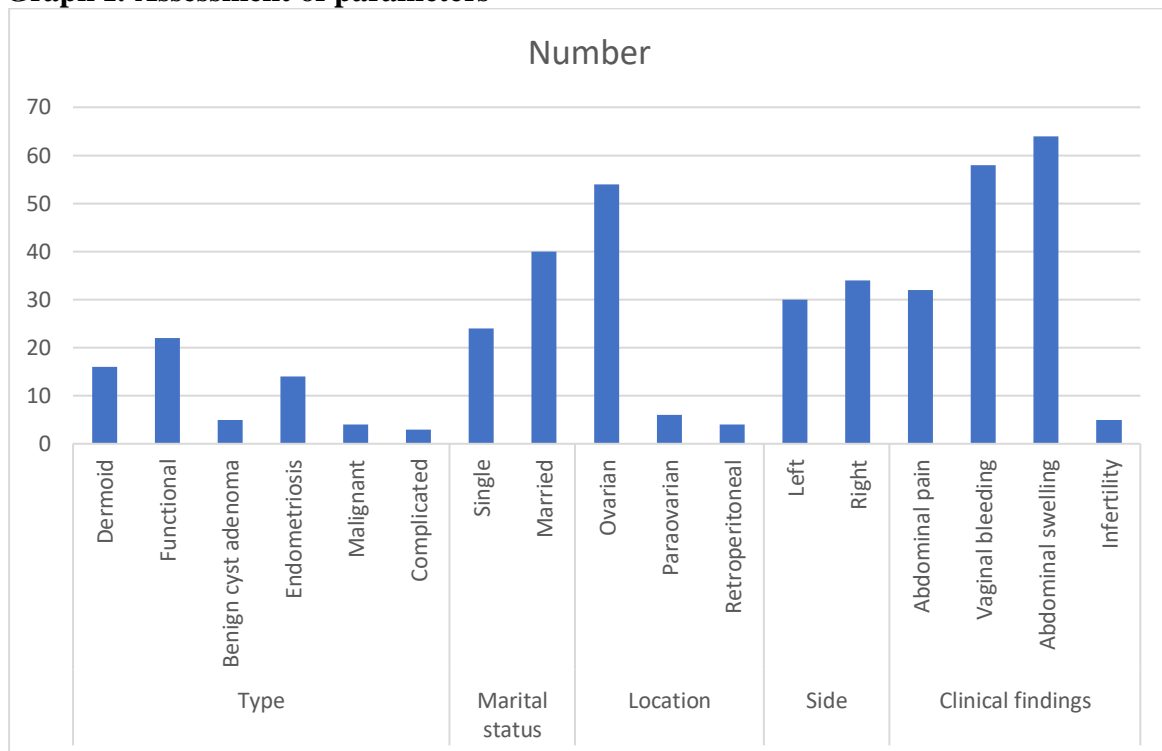
Age group (Years)	Number	P value
20-25	30	0.05
25-30	20	
>30	14	

Table I shows that age group 20-25 years had 30, 25-30 years had 20 and >30 years had 14 cases. The difference was significant ( $P < 0.05$ ).

**Table II: Assessment of parameters**

Parameters	Variables	Number	P value
Type	Dermoid	16	0.01
	Functional	22	
	Benign cyst adenoma	5	
	Endometriosis	14	
	Malignant	4	
	Complicated	3	
Marital status	Single	24	0.02
	Married	40	
Location	Ovarian	54	0.01
	Paraovarian	6	
	Retroperitoneal	4	
Side	Left	30	0.91
	Right	34	
Clinical findings	Abdominal pain	32	0.05
	Vaginal bleeding	58	
	Abdominal swelling	64	
	Infertility	5	

Table II, graph I shows that common type was dermoid in 16, functional in 22, benign cyst adenoma in 5, endometriosis in 14, malignant in 4 and complicated in 3 cases. Patients were single in 24 and married in 40. Type was ovarian in 54, para ovarian in 6 and retroperitoneal in 4 cases, side was left in 30 and right in 34. Clinical features were abdominal pain in 32, vaginal bleeding in 58, abdominal swelling in 64 and infertility in 5 cases. The difference was significant ( $P < 0.05$ ).

**Graph I: Assessment of parameters**

## DISCUSSION

An ovarian cyst is a common gynecological problem and is divided into 2 main categories; physiological and pathological. Physiological cysts are follicular cysts and luteal cysts. Pathological cysts are considered as ovarian tumors, which might be benign, malignant, and borderline.<sup>6</sup> Benign tumors are more common in young females, but malignant are more frequent in elderly females. Most ovarian cysts are asymptomatic and disappear spontaneously. When ovarian cysts are large, they may cause abdominal discomfort.<sup>7</sup> If pressing on the bladder it may also cause frequency of urination. The signs and symptoms of ovarian cysts may include; pelvic pain, dysmenorrhea, and dyspareunia.<sup>8</sup> Other symptoms are nausea, vomiting, or breast tenderness, fullness and heaviness in the abdomen and frequency and difficulty emptying of the bladder.<sup>9</sup> The present study was conducted to assess ovarian cysts.

We found that age group 20-25 years had 30, 25-30 years had 20 and >30 years had 14 cases. Adulijabar et al<sup>10</sup> included 244 cases of ovarian cysts. The age ranged from 3 months to 77 years of age. The parity from 0-6. The height ranges from 37-180 cm. The weight ranges from 3-161 kg, and calculated body mass index ranged from 12-47. Out of 244 patients diagnosed, 165 were married (67.4%). Of those, only 16 patients were pregnant (6.6%). The most common presentation was abdominal pain in 142 patients (58.2%). Only 79.9% were ovarian cysts, and 17.5% were either para-ovarian or retroperitoneal. The right ovaries were affected in 63.1%, and only 18.9% were bilateral. The types of ovarian cysts included functional cysts 33.2%, benign cyst-adenoma 19.3%, and dermoid cysts 12.3%.

We observed that common type was dermoid in 16, functional in 22, benign cyst adenoma in 5, endometriosis in 14, malignant in 4 and complicated in 3 cases. Patients were single in 24 and married in 40. Type was ovarian in 54, paraovarian in 6 and retroperitoneal in 4 cases, side was left in 30 and right in 34. Clinical features were abdominal pain in 32, vaginal bleeding in 58, abdominal swelling in 64 and infertility in 5 cases. Hertzberger et al<sup>11</sup> successfully managed

90% of children with large ovarian cysts without surgical intervention. Hemorrhagic functional cysts may be confused with a malignant process due to its solid or complex characteristics but should regress in 2 to 8 weeks.

Kanizsai et al<sup>12</sup> evaluated the characteristics and symptoms of ovarian cysts, their connection with the methods of treatment, and the effectiveness of the therapy. Out of 119 girls, 144 ovarian cysts were found by ultrasound examination performed either routinely or for a specific purpose. One group of patients received gestogen to facilitate resolution of the cyst and as treatment of menstrual disorder. Others received clomiphene citrate exclusively as therapy for menstrual irregularity. The site, number, size, and type of the cysts were examined. The indications for ultrasonography and the effectiveness of the treatment were analyzed. The ovarian cysts were mostly unilateral, unilocular, and simple, with the size varying between 3 cm and 5 cm in diameter in 90 cases, more than 5 cm in 41 cases, and less than 3 cm in 13 cases. A number of cysts were found incidentally on ultrasound. Girls were scanned most often because of irregular bleeding (80 cases). Hormonal treatment was given in 105 cases, whereas in 35 cases only follow-up sonography was performed. Cysts resolved spontaneously in 4.5 weeks on average, or in 3 weeks after hormonal treatment. Surgical therapy was necessary for nine patients. The indication for surgery was the detection of complex cysts indicative of dermoid type, size of the cysts, severe pelvic pain, or failure of the cyst to resolve or decrease in size spontaneously or in response to treatment as determined by follow-up sonography. All of the cysts were benign on pathological evaluation.

## CONCLUSION

Authors found that common type was dermoid, functional, benign cyst adenoma, endometriosis, malignant and complicated. Most common location was ovarian.

## REFERENCES

1. Grovas, A., Fremgen, A., Rauck, A., Ruyman, D., Hutchinson, C., Winchester, D. Menck, H. The national cancer data base report on patterns of childhood cancers in the United States. *Cancer* 1997;80: 2321.
2. Miller, Templeman, C., Fallat, M., Blinchevsky, A. and Hertweck, S. Noninflammatory ovarian masses in girls and young women. *Obstetrics & Gynecology* 2000;96: 229- 233.
3. Laufer, M. and Goldstein, D. Benign and malignant ovarian masses. *Pediatric and adolescent gynecology*. Lippincott Williams & Wilkins, Philadelphia, 2000;685-728.
4. Millar, D., Blake, J., Stringer, D., Hara, H., Naniak, C. Prepubertal ovarian cyst formation: 5 years experience. *Obstetrics & Gynecology* 1993;81: 434-438.
5. Skinner, M.A., Schlatter, M.G., Heifetz, S.A. and Grosfeld, J.L. Ovarian neoplasms in children. *Archives of Surgery* 1993;128, 849-854.
6. Oltmann, S.C., Garcia, N., Barber, R., Huang, R., Hicks, B. and Fischer, A. Can we preoperatively risk stratify ovarian masses for malignancy? *Journal of Pediatric Surgery* 2010;45: 130-134.
7. Cass, D.L., Hawkins, E., Brandt, M.L., Chintaquampala, M., Bloss, R., Milewicz, A., Minifee, P., Wesson, D., Nuchtern, J. (2001) Surgery for ovarian masses in infants, children, and adolescents: 102 consecutive patients treated in a 15-year period. *Journal of Pediatric Surgery*, 36, 693-699.
8. Brown, M., Hebra, A., McGeehin, J., Ross, A. (1992) Ovarian Masses in Children: A review of 91 cases of malignant and benign masses. *Journal of Pediatric Surgery*, 28, 930-932.
9. Ozcan, E.R., Kuruoglu, S. and Dervisoglu, S. Ovary-sparing surgery for teratomas in children. *Pediatric Surgery International* 2013;233-237.

10. Abduljabbar HS, Bukhari YA, Al Hachim EG, Ashour GS, Amer AA, Shaikhoon MM, Khojah MI. Review of 244 cases of ovarian cysts. Saudi medical journal. 2013 Jul;36(7):834.
11. Hertzberg, B.S., Kliewer, M.A. and Paulson, E.K. Ovarian cyst rupture causing hemoperitoneum: Imaging features and the potential for misdiagnosis. *Abdominal Imaging* 1999;24, 304-308.
12. Kanizsai, B., Orley, J., Szigetvari, I. and Doszpod, J. (1998) Ovarian cysts in children and adolescents: Their occurrence, behavior, and management. *Journal of Pediatric and Adolescent Gynecology*, 11, 85-88.