

:

*

()

()

83/8/4 : _ 83/7/8 :

Ovarian neoplasm in childhood & adolescents : During 20 years at Pathology Center of Imam Reza Hospital

Abstract :

Objective: Ovarian tumors represent about 1.5% of all tumors in childhood and adolescence and about 95% of all gynaecologic tumors. This paper analyzes 79 cases of ovarian tumor in children and adolescents.

Material & Method: In this retrospective study 79 cases with ovarian tumor in children and adolescents treated in Mashhad Imam Reza Hospital from March 1981 to March 2001 were evaluated.

Result: All cases were under 20 years with median age 17.4 years, and the youngest was 13 months. The tumors were classified according to WHO classification. Of 79 cases 61 (77.3%) were benign and 18(22.7%) were malignant. Forty (50.2%) were considered to be of germ cell, 34 (43.1%) celomic epithelial, 3 (3.7%) sex cord-stromal origin, 1(1.2%) Burkitt lymphoma and 1] (1.2%) mixed epithelial and germ cell origin. Forty cases had germ cell tumor: there were 26 teratoma, 9 dysgerminoma, 3 yolk sac tumor, 2 malignant mixed germ cell tumor. Thirty-four cases had epithelial neoplasm, 25 benign serous neoplasm and 9 mucinous tumor. Two cases of mucinous neoplasm were borderline and malignant. Three cases had sex cord stromal tumor: 1 setroli – lydig, 1 juvenile granulosa cell tumor, 1 fibroteloma.

In 76 cases were tumors unilateral and 3 cases (2 patients with dysgerminoma and 1 patient with Burkitt lymphoma) were bilateral. Tumoral torsion accounted for 11.3% of diagnosis.

Conclusion: Germ cell tumors are the most common ovarian neoplasm seen in the pediatric and adolescent age group. Epithelial and sex cord stromal tumors are less common. These neoplasms are benign, borderline or malignant. It is very important to diagnosis exactly and to assess suitable treatment in this age group to protect fertility.

Key words: Ovarian tumors –Childhood-Adolescence-Germ cell tumor

(4 2).

20

20

2 1/5

%95

()

:

20

20) 1380

()

1360

(

79

(WHO 1993)

(1)

SPSS

11/5

:

(3 2)

1360

) 20

93900

(1380

79 ()

61

20

(%22/7)

18

(%77/3)

WHO

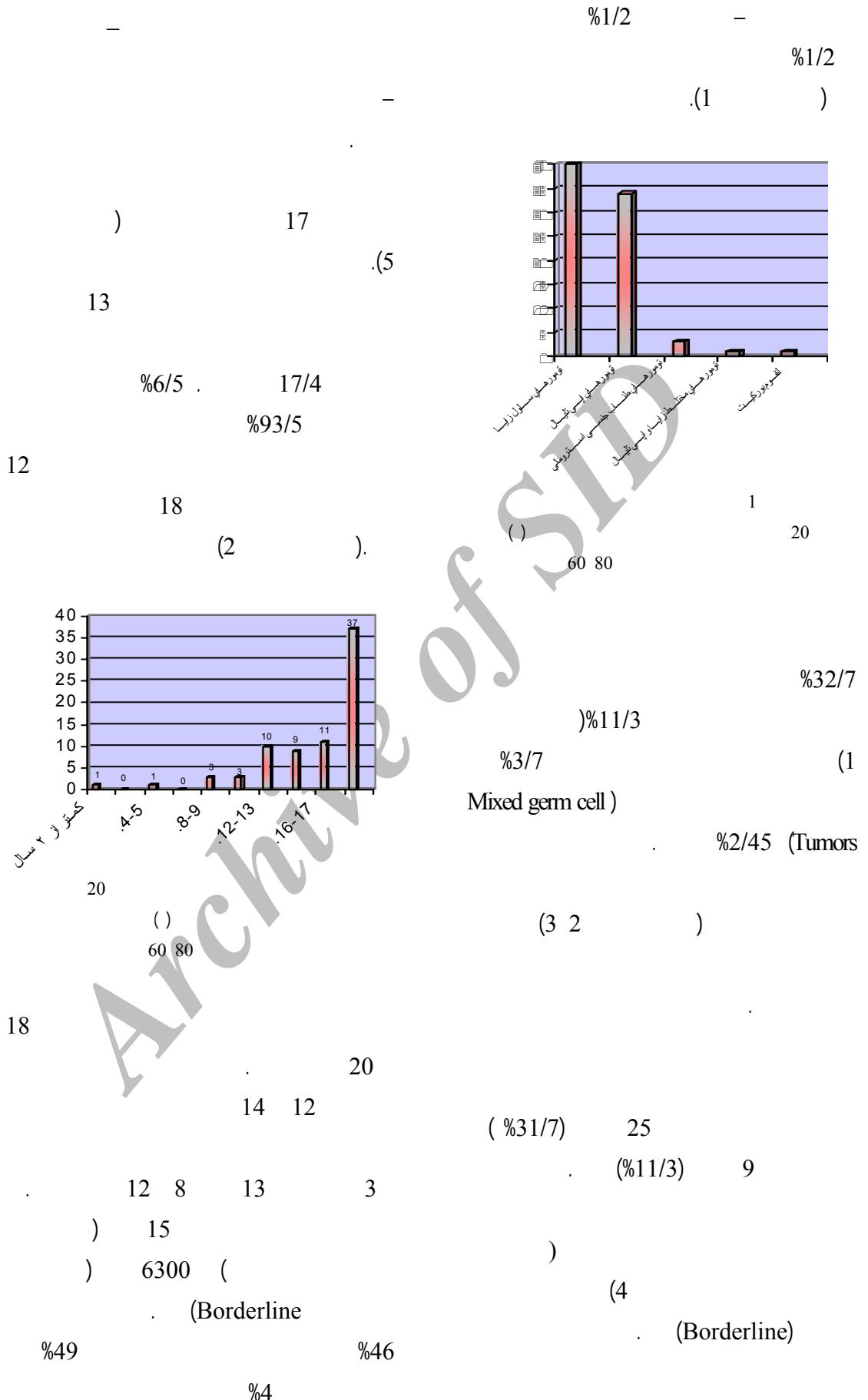
%43/1

%50/2

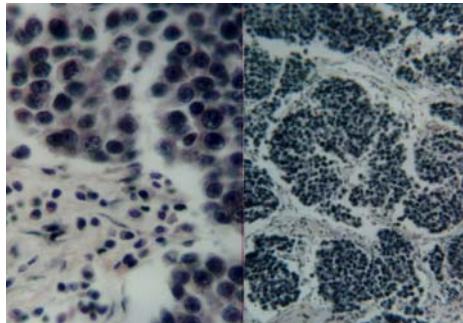
-

%3/7

%10



$(X^2=0.796, df=1)$



94744

10×10

10×40

:1

8

%22

%66/6

9

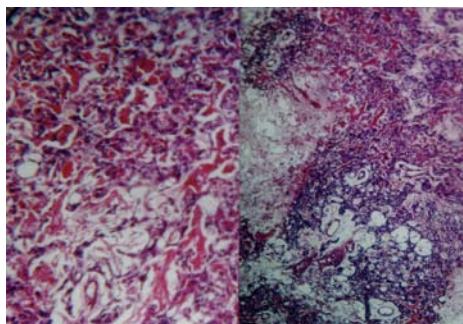
9

1

5

1

2



113501

:2

10×10

10×40

%33/3

%53/3

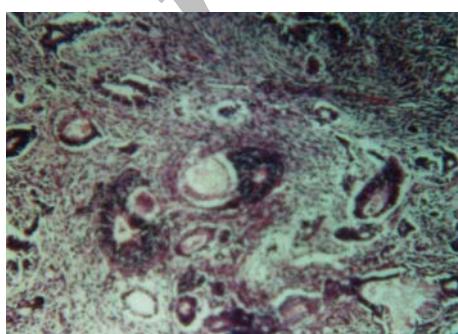
%13/4

(9)

%11/3

18

19



10×10

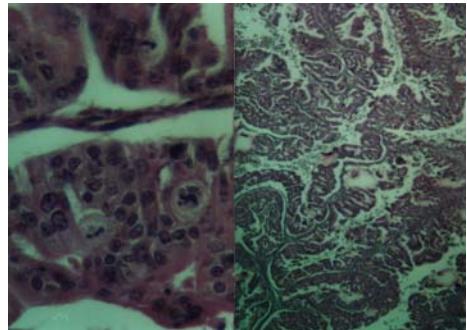
113501

:3

unclassified Sexcord Stomal tumor

WHO

$$(1 \ 5).$$



(6).

77 Li Ay (3 2)
%48 20

(7). %50/2

(2) %93/5

A

18 12

3

. (7) 12

94551 :4

10×10

10×40

This image shows a dense, low-growing ground cover plant. The leaves are small, rounded, and have a slightly fuzzy or velvety texture. They are arranged in a tight, overlapping pattern across the entire surface. The color of the leaves is a muted green, with some darker, more saturated green areas where the leaves are thicker or more densely packed. There are no flowers, stems, or other distinct features visible.

10×10 69800 :5

Starry Sky

18

6300 28×25×21

Borderline Malignant Neoplasms

2 1/5

%95

60 40

%13/6 De saliva

%16/9 %7/2

%22/7

(10)

(16).

(11)

109

Gorska

92

7

2

3

1

(4)

4 ()

11/5

40

(12)

9

26

3

(overlapping)

2

(16 12)

()

%35

Bafna

(13 12)

LDH(16).

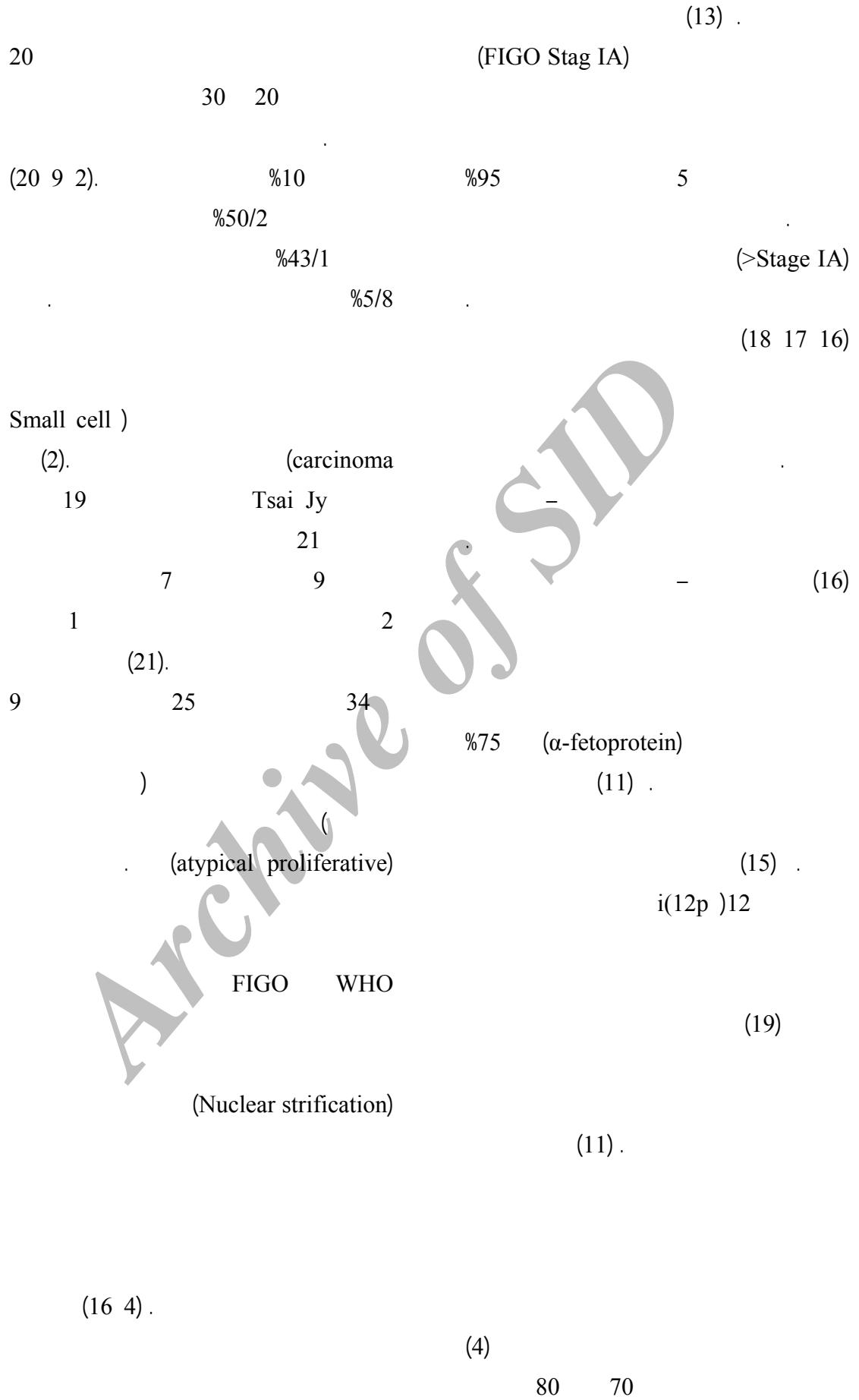
β HCG

(14).

%15 5 (15)

(16)

(15).



1

3

(23).

Hart-Norris

(16).

%10

(21).

%85 80 (24)

(2).

6

)

(11).

(10 HPF

(16).

%10

%90

(2)

Stag IA

(25)

(16)

(Meigs'syn)

(basal cell Nevus)

(12 16 22).

Schneider DT

-

-

72

20

14

-

48

5

%5

(26)

Sex Cord)

(16 11).

2

2 (Tumor with annualr tube

%11/3

19 14

(27).

(2)

B

(28).

()

LCA

(4).

%14/8

(29)

Archive of SID

		%95	%1/5	
	79			
	79			
()	1380	1360		
79	13	17/4	20	
%50/2 WHO		(- 18)%22/7	(- 61)%77/3	
%1/2	-	%3/7	%43/1	
				%1/2
	9	26()		40
9	(%31/7)	34	2	3
				(%11/3)
()	3	76
			%11/3	

References :

- 1.Horejsi J, Rob L . Malignant tumors of the female genitalia in childhood : yesterday , today and tomorrow . 2003 Feb ; 142(2): 84 – 7 .
 - 2.Elizabeth JP, Michael KF . The female reproductive system . In : Stocker GT Dehner LP . Pediatric pathology. 2nd ed . Philadelphia : Lippincott Williams & Wilkins ; 2002 : p 920 – 933 .

- 3.Kutusheva GF. Neoplasms of the genitalia in young girls. Vestn Khir Im I Grek. 2000; 159(1) : 41 – 5 .
- 4.Russell P, Bannatyne P . Surgical pathology of the ovaries . 2nd ed , London ; Churchill Livingstone ; 1989 .
- 5.Skiadas VT, koutoulidis V, Eleytheriades M , et al . Ovarian masses in young adolescents imaging finding with surgical confirmation . Eur J Gynaecol Oncol . 2004 ; 25(2): 201- 6 .
- 6.Crur CP. The femal genital tract . In: Cotran RS , Kumar V , Collins T. Robbins pathologoic : basis of disease . 6th ed . Philadelphia : W.B. Saunders Company ; 1999 : 1035 – 1089 .
- 7.Li Ay. Ovarian tumor in the juvenile an analysis of 77 cases . Zhongua Zhong Li, Za zhi 1985 Nov ; 7(6): 457- 9 .
- 8.Schneider Dt, Calaminus G, Koch S, et al . Epidemiologic analysis of 1442 children and adolescents registered in German germ cell tumor protocols, pediatrs . Blood Cancer 2004 Feb ; 42(2): 169 – 75 .
9. Quin EH.Adnexal Masses in Teenagers. J ped and Adol Gyn . 2000 Aug ; 13(3) : 145 – 6 .
- 10.De Saliva KSH , Kanumakala S,Grover SR , et al. Ovarian lesions in Children and Adolescents-An 11 year Review . J of Ped Endoc Meta 2004 ; 17(7) : 951 – 7 .
- 11.Rosai J . Rosai and Ackerman's surgical pathology . 9th ed . Edinburg : Mosby ; 2004 .
- 12.Rzepka GI , Blogouska A, Zajazeks , et al . Germinal cell tumors in young and adolescent girls . Ginekol pol 2003 Sep ; 74(9) : 840 – 6 .
- 13.Yilmaz F, Gel T, Uzunlar Ak . Malignant Ovarian germ cell tumors: analysis of 32 cases . Eur J Gynaecol oncol . 2003 ; 24(6): 569 – 73 .
- 14.Bafna UD, Umadevi K, Kumaran C. Germ cell tumors of the ovary : is there a role for aggressive cytoreductive surgery for nondysgerminatous tumors . Int J Gynecol cancer 2001 Jul-Aug ; 11(4): 300 – 4 .
- 15.Nechushkina IV, koshechkina NA, kharitonova TV. Diagnosis of germinogenic ovarian tumors in girls . Vestn Ross Akad Med Nauk 2000; 6 : 5 – 8 .
16. Zaloudek, C. Tumors of the Ovary, In: Fletcher CDM . Diagnostic histopathology of tumors. 2nd ed . London : Churchill Livingstone ; 2000 : p 567 – 624 .

- 17.Zuntova A, Sumeraver D, Teslik L , et al . Ovarian dysgerminoma in children and adolescents. Retrospective clinico – pathologic Study . Cas Lek Cesk . 2004 ; 143(4) : 246-52 .
- 18.Gorden A, Lipton D, Woodruff JD . Dysgerminoma : a review of 158 cases from the Emil Novak ovarian tumor Registry. Obstet Gynecol. 1981 Oct ; 58(4) : 497- 507.
- 19.Speleman F . De potter C Dal Cin p, i(12p)in a malignant ovarian tumor . cancer genet cytogenet . 1990 Mar ; 45(1): 49 – 53 .
- 20.Mandic A , Nincic D, Vujkov T. Ovarian epithelial carcinoma – a malignant disease sparing no age group . Med pregl .2003 Mar-Apr ; 56(3-4) : 157 – 61 .
- 21.Tsai JY, Saigo PE, Brown C, et al . Diagnosis, pathology , staging, treatment, and outcome of epithelial ovaria neoplasia in patients age < 21 years . Cancer 2001 Jun 1 ; 91(11): 2005 – 70 .
- 22.Francois Y, Berlier P, Chatelain F, et al . Virilizing ovarian tumor in an adolescent pediatrie 1990 ; 45(2) : 105 – 7 .
- 23.Schueider DT, Janig U, Calaminus G, Ovarian sex cord – stromal tumors – a clinicopathological study of 72 cases from the kiel pediatric tumor registry. Virchows Arch. 2003 Oct; 443(4):549-60 .
- 24.Chudecka GA , Rzepka GI , Blogowska A, et al . Granulosa cell tumor in different periods of women's life . Ginekol Pol.2003 sep; 74(9):689-94.
- 25.Kdous M, Hachicha R, Gamoudia A . Early isosexual precocious pseudopuberty revealing a Juvenile granulosa cell tumor in a six-year old girl . Gynecol Obstet Fertil. 2004 Apr; 32(4):311-4.
- 26.Istok R, Langmar Z, Szabo I , et al . Unilateral sertoli cell androblastoma in the ovary of a young woman . Orv Hetil, 2004 Mar 28; 145(13):693-6.
- 27.Kim JY, Jung KJ. Chung DS , et al . Sclerosing stromal tumor of the ovary: MR-pathologic correlation in three cases, korean . J Radiol.2003 Jul-spe;4(3)194-9.
- 28.Mielcarek P, Emerich J, Pikiel J, et al . Burkit lymphoma involving the ovaries, Ginekol Pol. 2003 Jul:74(7):553-6 .
- 29.Bouguizane S, Bibi H, Farhat y, et al . Adnexal torsion a report of 135 cases . J Gynecol obstect Biol Repord(paris) . 2003 Oct ; 32(6):535-40.