Survival Analysis of Uterine Pappilary Serous and Clear Carcinoma Endometrium at AHPGIC, Odisha, India

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***Abstract*- OBJECTIVE** –The objectives of this study was survival analysis of the clear cell and uterine pappilary serous cell carcinoma AT AHPGIC

Material methods- A cohort of 39 patients diagnosed and underwent complete surgical staging for upsc and clear cell of the endometrium from 2010- 2018were viewed ,followed by adjuvant CTRT.The Survival analysis using the Kaplan Meyers .Difference between the categorical data were calculated by chisquare.

RESULTS- We could analyse that overall 5 year survival analysis both clear cell and upsc, was 57.2%. overall survival stage III was 33.1% and that of stageIV was 30%. There were no event in stage1 and stage2.

I. INTRODUCTION

Clear cell carcinoma of the uterus is the rare subtype accounting for1-6% of uterine cancers, is characterised histologicaly by clearing of cytoplasm(1). They present in higher stage .comprehensive surgical staging is recommended in all clear cell carcinoma. Aggressive , multimodality of treatment (Including surgery, chemotherapy,and /or radiation therapy), is recommended as compared to endometroid carcinomas. Clear cell carcinomas are geneticaly distinct from endometroid cancer. Clear cell tumors show similar gene expression profiles regardless of origin.(2) • Uterine pappilary serous cancer is the most common prototype of type II endometrial cancer,which accounts for only 10% of all endometrial cancer but is responsible for 40% death in endometral cancer(3). The most common symptom diagnosed in UPSC, as is for women with endometrial cancer , is post menopausal bleeding .This is usually mixed with grade 3 endometroid andclearcell .UPSC tends to occur in older women .Increase risk is seen africo american women .Upsc is highly aggressive and more likely to be presenting in advanced stage iii and iv.(4). Women , on tamoxifen for breat cancer is at a risk of upsc. Asscociation between BRCA and upsc , is evident in the emerging data. There is a precursor lesion for, but it may present late, at advanced stage There are some similarities in serous ovarian cancer and UPSC such as tendency for peritoneal carcinomatosis, presenting with ascites, upper abdomnal involvement and early lymph node involvement (5). The 5 yr survival for patients with upsc has been reported from 18% to 27%, which is probably due to extra uterine spread in 60 - 70% of the patients at diagnosis(6) . • Although clear cell serous cancer constitutes less than 10 % of the endometrial cancers, they account 50% of recurrences and disease related deaths. The most common presentation in clear cell carcinoma is post menopausal bleeding. Ther is association of BRCA , ARIDIA with clear cell cancer.There is increase frequency of clear cell , post radiation.(7) Diagnosis and work up endomerial biopsy, by pipelle has sensitivity of 99 %.Ultrasound not reliable for upsc(8) II.

II. MATERIAL- METHODS

Inclusion criteria- 1. all cases of clear cell and upsc of the endometrium • Exclusion - 1.all endometroid 2.mmmt 3. sarcomas 4. cervical cancers the clinical and pathological data were reviewed at ahrcc. all the specimen were evaluated by pathologists. The patients underwent the surgical staging, histopathology was analysed. Their comorbidities, preop imaging with respect to endomerial thickness were taken into consideration. The age , parity, menopausal staus and presenting symptoms.They were followed over period of 5yrs(60 months), post surgery post adjuvant ctrt. The survival analysis by Kaplan Meyers ,the chi –square and the multivand the multivariate regression analysis done using the SPSS.

Descriptive statistics for Clinical part

Total case = 39
Overall Median (range) age in years = 61(36-88)
Overall Median (range) imaging in mm = 15(3.5-34)

Clinical part for clear cell

Variable	n (%)
Age	21
Median (range) in years 60 (45-70)	
<60 year	08(38)
≥60 year	13(62)
O/H	21
Multipara	17(81)
Nullipara	04(19)
M/H	21
Menopause attended	21(100)
Menopause not attended	00(00)
Comorbidity	21
Present	09(42.9)
1.Hypertention	05
2.Diabeties	03
3.Both	01
Absent	12(57.1)
Imageing	21
Median (range) in mm 15 (3.5-23)	
<15 mm	10(47.6)
≥15 mm	11(52.4)
Presently symptoms	
Prob	21
Present	20(95.2)
Absent	01(04.8)
Pmwd	21
Present	02(09.5)
Absent	19(90.5)
pmod	21
Present	00(00)
Absent	21(100)

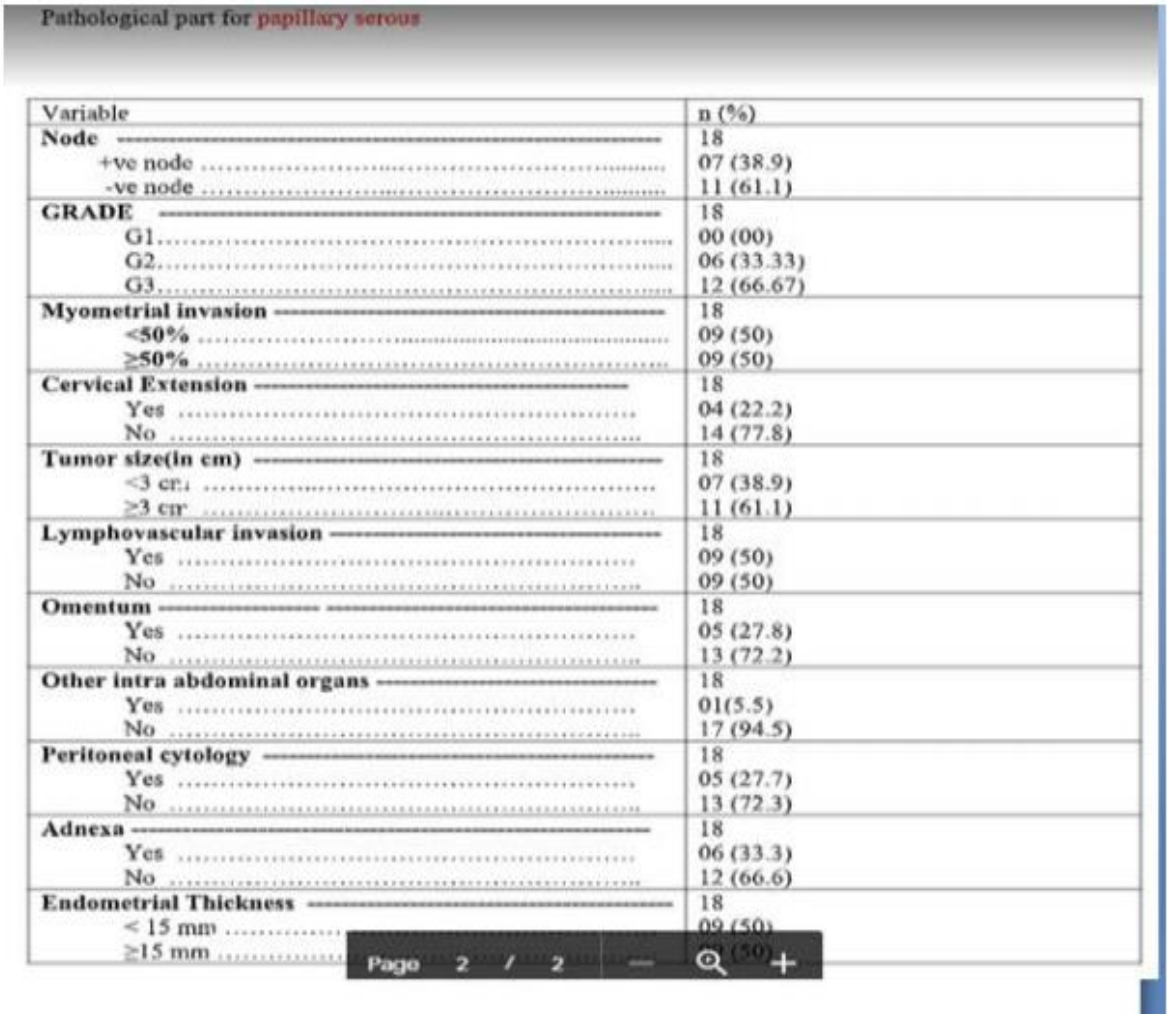
FIG-
FIG1

Clinical part for papillary serous

Click to add text

variable		n (%)
Age		17
	median (range) in years	61.5 (36-88)
	<61.5 year	06(35.3)
	≥61.5 year	11(64.7)
O/H		17
	Multipara	13(76.5)
	Nullipara	04(23.5)
M/H		17
	Menopause attended	16(94.1)
	Menopause not attended	01(5.9)
Comorbidity		17
	Present	08(47)
	1.Hypertention	02
	2.Diabeties	04
	3.Both	02
	Absent	09(53)
Imageing		17
	median (range) in mm	14.5 (3.5-34)
	<14.5 mm	09(53)
	≥14.5 mm	08(47)
Presently symptoms		
	Pmb	17
	Present	17(100)

Fig-2 DESCRIPTIVE STATISTICS OF CLINICAL PART OF PAPPILARY SEROUS CANCER OF UTERUS



Pathological part for papillary serous

Variable	n (%)
Node	18
+ve node	07 (38.9)
-ve node	11 (61.1)
GRADE	18
G1	00 (00)
G2	06 (33.33)
G3	12 (66.67)
Myometrial invasion	18
<50%	09 (50)
≥50%	09 (50)
Cervical Extension	18
Yes	04 (22.2)
No	14 (77.8)
Tumor size(in cm)	18
<3 cm	07 (38.9)
≥3 cm	11 (61.1)
Lymphovascular invasion	18
Yes	09 (50)
No	09 (50)
Omentum	18
Yes	05 (27.8)
No	13 (72.2)
Other intra abdominal organs	18
Yes	01(5.5)
No	17 (94.5)
Peritoneal cytology	18
Yes	05 (27.7)
No	13 (72.3)
Adnexa	18
Yes	06 (33.3)
No	12 (66.6)
Endometrial Thickness	18
< 15 mm	09 (50)
≥15 mm	(50)

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Descriptive statistics for Pathological part

Total case = 39
Overall Median (range) Tumor size in cm = 03 (0.3-10)
Overall median (range) Endometrial Thickness in mm = 15 (3.5-34)

Pathological part for clear cell

Variable	n (%)
Node	21
+ve node	12 (57)
-ve node	09 (43)
GRADE	21
G1	00 (00)
G2	07 (33)
G3	14 (67)
Myometrial invasion	21
<50%	09(42.8)
≥50%	12 (57.2)
Cervical Extension	21
Yes	02 (9.5)
No	19 (90.5)
Tumor size(in cm)	21
<3 cm	12 (57.2)
≥3 cm	09 (42.8)
Lymphovascular invasion	21
Yes	02 (9.5)
No	19 (90.5)
Omentum	21
Yes	02 (9.5)
No	19 (90.5)
Other intra abdominal organs	21
Yes	00 (00)
No	21 (100)
Peritoneal cytology	21
Yes	06 (28.6)
No	15 (71.4)
Adnexa	21
Yes	04 (19)
No	17 (81)
Endometrial Thickness	21
< 15 mm	10 (47.6)
≥15 mm	11 (52.3)

FIG-2

Descriptive statistics for Survival part

Total case = 39

Variable	n (%)
Grade	39
S1(1A)	11 (28.2)
S1(1B)	03 (7.7)
S2	02 (5.1)
S3(A)	00 (00)
S3(B)	00 (00)
S3(C1)	05 (12.8)
S3(C2)	13 (33.4)
S4(A/B)	05 (12.8)
follow up	39
mean (range)in years 2.8 (1-5)	
< 2.8 years	14 (35.9)
≥ 2.8 years	25 (64.1)
median (range)in years 3 (1-5)	
< 3 years	14 (35.9)
≥ 3 years	25 (64.1)
survival	
Yes	26 (66.7)
No	12 (30.7)
NA	01 (2.6)
Death	
Yes	11 (28.2)
No	28 (71.8)
Recurrence	
Yes	20 (51.3)
No	16 (41)
NA	03 (7.7)
Loss to follow up	
Yes	11 (28.2)
No	28 (71.8)

FIG-3

OVERAL SURVIVAL ANALYSIS

Time	N risk	N event	survival	Std error	Lower 95% CI	Upper 95% CI
12	39	2	0.949	0.0353	0.882	1.000
24	35	3	0.867	0.0553	0.766	0.983
36	25	3	0.763	0.0745	0.630	0.924
48	8	2	0.572	0.1295	0.367	0.892

5 year overall survival is 57.2 % with 95% CI (0.367, 0.892)

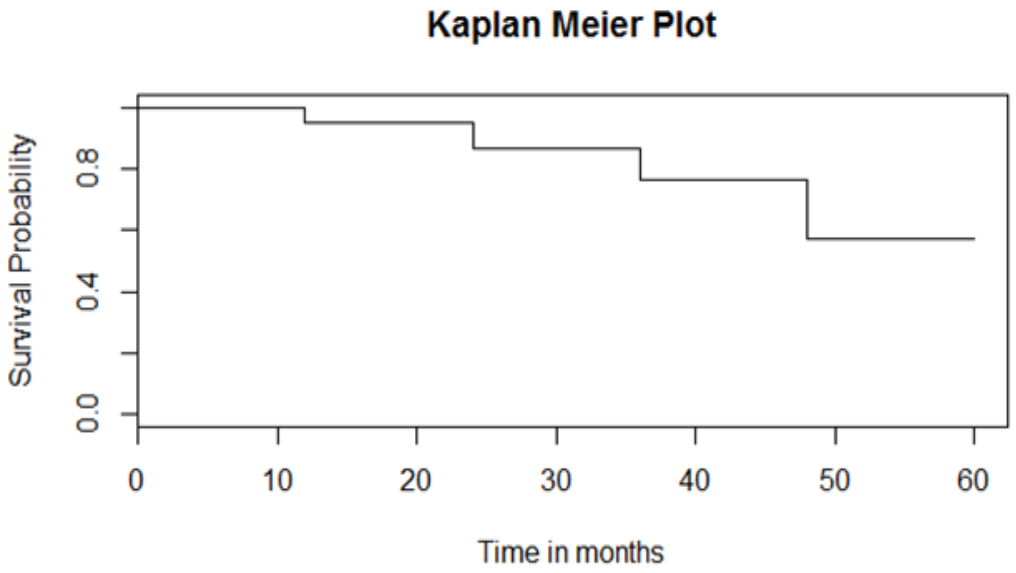

FIG-4

Survival with respect to stages

There are no event (death) occurs in state-1 and stage-2. So, survival summery for stage-3 and stage-4 are given below:

For stage-3						
Time	N risk	N event	Survival	Std error	Lower 95% CI	Upper 95% CI
12	18	1	0.944	0.0540	0.844	1.000
24	16	2	0.826	0.0913	0.666	1.000
36	10	2	0.661	0.1275	0.453	0.965
48	4	2	0.331	0.1771	0.116	0.945

5 year overall survival for stage-3 is 33.1 % with 95% CI (0.116, 0.945)

For stage-4						
Time	N risk	N event	survival	Std error	Lower 95% CI	Upper 95% CI
12	5	1	0.8	0.179	0.5161	1.000
24	4	1	0.6	0.219	0.2933	1.000
36	2	1	0.3	0.239	0.0631	1.000

5 year overall survival for stage-4 is 30 % with 95% CI (0.0631, 1.000)

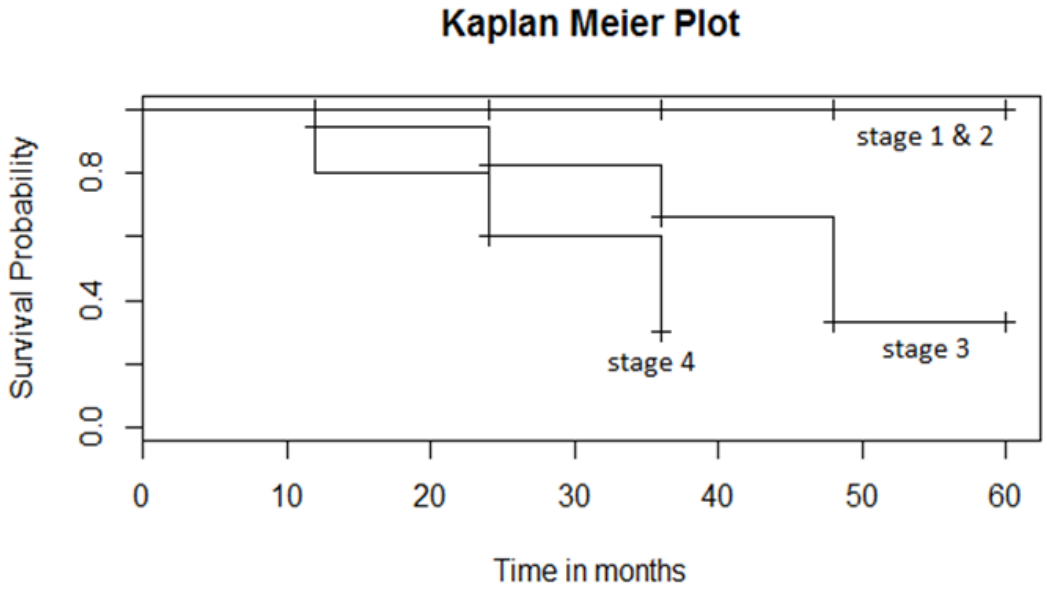

FIG-5

III. RESULTS

Our study analysis revealed that maximum cases of clear cell in the median age range of 61 yrs , 13 (62%)more than 60yrs.Most of the clear cell associated with co-morbidities 21 cases(100%). 17(81%) were multiparous.They usually present with post –menopausal bleeding 20(95.2%) ,few presented with watery discharge 2(09.5%) Pre –op imaging revealed ,endometrial thickness of 15 mm was detected in 47.5% , range of minimimum of 3mm to a maximum of 34 mm recorded. 14(57%) showed a grade 3. The nodal positive status 12(57%) .On multi –variate analysis , lymphovascular space invasion and myo-invasion was found to statistically significant , with **a p-value.052 and .065** respectively that affected the nodal status in clear cell carcinoma. UPSC was, more prevalent in age group of 61 yrs, multiparous13(76%), median of 61.5 yrs. Most of them was associated with co-morbidities 8(47%),94% attained menopause and presented with post menopausal bleeding(100%).The pre-op imaging showed a median of endometrial thickness of 14.5 mm, 9 (53%) the minimum of 3.5 mm to a maximum of 34mm were recorded. (66%)12 cases presented with grade311(61.7%) were nodal status positive in UPSC.The myo-invasion >50%,LVSI+omentum+ peritoneal cytology+, adnexa+, was significantly associated with nodal positivity in UPSC in multivariate regression analysis with a p value **0f.03,03,.046,.046, .022-** We could analyse and refiect the survival using Kaplan Meyers curve i.e that overall 5 year survival analysis both clear cell and upsc, was **57.2%.** overall survival stage III was **33.1% and that of stageIV was 30%**. There were no event in stage1 and stage2.

- **ABBREVIATIONS**- UPSC – UTERINE PAPPILARY SEROUS CELL CARCINOMA
  ET- ENDOMETRIAL THICKNESS
  LVSI-LYMPHO-VASCULAR SPACE INVASION .MMMT- MALIGNANT MIXED MUELLERIAN TUMOR

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