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## Radical versus conservative management of placenta previa

## accreta

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## **ORIGINAL ARTICLE**

# Radical Versus Conservative Management of Placenta Previa Accreta

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#### Abstract

*Objective*: It is to evaluate the effectiveness and side effects of various treatment options for the placenta accreta (PA) spectrum.

Patients and procedures: Between November 2011 and September 2021, this trial was done as a prospective study at the Sayed Galal Hospital and the Aga Central Hospital. 100 women who were diagnosed with placenta previa (PP) accreta by the ultrasound participated in this study. The cases were initially advised to receive conservative care, but a radical cesarean hysterectomy was performed if uncontrollable hemorrhage was faced.

*Results*: There was no statistically significant difference between the two groups regarding the studied maternal outcomes. 23% of our sample were admitted to the ICU. 26.9% of them endured bladder injury (37.5% vs. 10% in the conservatively treated group and the radically treated group, respectively, P = 0.12). 37.5% of the conservatively treated group experienced postpartum endometritis, P = 0.16. Finally, 12.5% experienced septicemia in the conservatively treated group, P = 0.26. We experienced 30% mortality of the neonates in the radically treated group, P = 0.02, and this is a statistically significant difference between the two groups.

*Conclusion*: The option of treatment for placenta accreta (PA) must be made depending on preference, resources, skills, and circumstances. Both conservative treatment and reconstructive surgery have benefits and drawbacks.

Keywords: Conservative therapy, Placenta accreta, Placenta previa, Radical treatment

#### 1. Introduction

**P** atients with placenta previa (PP) may have substantial postpartum hemorrhage after the placenta is removed. Additionally, poor attachment of the placenta to the myometrium due to placenta accreta (PA), which results in insufficient placenta separation, may contribute to potentially deadly maternal hemorrhage.<sup>1</sup>

PA syndrome is the term for any placental implantation characterized by particularly strong adhesion to myometrium as a result of partial or total absence of the decidua basalis and inadequate development of the fibrinoid or Nitabuch layer.<sup>2</sup> There is no clear standard of care for the serious condition known as accreta syndrome, which has pandemic proportions. Accreta syndromes include conditions that go beyond physical defects. Cytotrophoblasts may be able to regulate decidual invasion in part through angiogenesis and growth expression.<sup>3</sup>

Most of the time, the placenta merely adheres to the decidua basalis, allowing it to slip out of the uterine wall after delivery. PA is a condition when chorionic villi invade the myometrium through the decidua basalis. There are many varieties of morbidly adherent placenta, depending on the degree of the placenta's penetration into the uterine wall. A PA occurs when the placenta penetrates the myometrium superficially. Placenta increta happens when the chorionic villi puncture the myometrium more deeply. The three types of PP, which is an invasion of the placenta into the uterine serosa and may also have an impact on other organs like the

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urinary bladder, are instead typically referred to as 'accreta' in medical terminology.<sup>4</sup>

Sonography is often the best method to identify abnormal placental ingrowth before birth.<sup>5–7</sup> Doppler colour flow mapping is significantly predictive of myometrial invasion if there are large intraplacental lacunae and there is less than 1 mm between the uterine serosa-bladder wall interface and the retroplacental arteries.<sup>6</sup>

PA is identified when the following ultrasonographic criteria are met: (1) the presence of placental lacunae; (2) retroplacental placental thickness of less than 1 mm; (3) the absence of the characteristic hypoechoic retroplacental zone, and (4) irregularity at the bladder-myometrium interface.<sup>8</sup>

There is disagreement over the ideal surgical treatment for PA. However, the majority of medical professionals concur that PA should only be treated with a cesarean hysterectomy, with no effort to remove the placenta.<sup>9</sup>

Peripartum hysterectomy has been the traditional surgical procedure used to treat patients with PAS issues. However, it involves a substantial risk of maternal death (7%), genitourinary injury (6%–29%), significant transfusion (13%), further surgery (33%) and massive transfusion (13%).<sup>10</sup>

Because of this, conservative therapeutic approaches for PAS disorders have been described to reduce morbidity while also maintaining future fertility by maintaining the uterus. However, the best conservative surgery for PAS illnesses has not yet been found. It relies on a variety of factors, such as the team's prior experience, the surgeon's preferences, the hospital's resources, and the urgency of the situation.<sup>11</sup>

There are several surgical, pharmaceutical, and interventional endovascular therapeutic options available, but no universally accepted care recommendations exist.<sup>12</sup>

Numerous techniques have been described in the literature for reducing excessive bleeding brought on by PP cesarean sections (CS), including uterine packing with gauze, balloon tamponades, the B-Lynch suture, insertion of parallel vertical compression sutures, a square suturing technique, embolization or ligation of the uterine and internal iliac arteries, and embolization or ligation of the uterine and iliac.<sup>13</sup>

#### 2. Patients and methods

This inquiry was conducted as a prospective study at the Sayed Galal Hospital and the Aga Central Hospital between November 2011 and September 2021. In this study, 100 women with PP accreta who met one or more of the conditions listed below placental lacunae, myometrial thinning to less than 1 mm, lack of a placental-uterine interface, and aberrant uterine bladder interface—were evaluated for the condition.<sup>14</sup>

For PP to be diagnosed sonographically, the internal cervical so must be covered by or near to echogenic homogeneous placental tissue (a distance greater than 2 cm from the so excludes the diagnosis of previa).<sup>15</sup>

Magnetic resonance imaging (MRI) was used to identify PA using the following criteria: as the hypoechoic barrier is removed, it looks that the placenta and bladder wall are one continuous structure. The damaged uterine wall may have intraplacental sonolucent gaps around it on ultrasonography (also known as lacunar flow). There are several signs of the second and third trimesters, including the loss of continuity of the uterine wall, numerous vascular lacunae (irregular vascular spaces) within the placenta, the appearance of 'Swiss cheese' close to the site of placental implantation, the absence of a hypoechoic border (myometrial zone) between the placenta and the and bulging of the placental/ myometrium, myometrial.

First, conservative therapy was suggested for the instances, then a cesarean hysterectomy was done if excessive bleeding started to occur.

#### 2.1. Sample size

The open source calculator SSProper from OPEN EPI, Version 3 (*https://www.OpenEpi.com*), was used to determine the sample size. According to Machado et al. (2011), a sample size of 100 patients is needed to detect maternal outcomes of 6.95%, assuming that the power is 80%, the design effect is 1, and the significance level is 0.05.

Gestational age above 34 weeks is a requirement for inclusion. Age 25–35. Based on ultrasound findings, such as numerous vascular lacunae within the placenta, loss of the typical hypoechoic zone between the placenta and myometrium, decreased retroplacental myometrial thickness (less than 1 mm), abnormalities of the uterine serosa-bladder interface, and extension of the placenta into the myometrium or serosa, the condition was determined to be accreta or percreta prepared to protect their fertility.

Those for whom the data are incomplete are excluded. Patients whose diagnoses were not confirmed intraoperatively were also not included in the final analysis. Unsuccessful therapy. In medicine, co-morbidities (hypertension, diabetes mellitus (DM), heart diseases). Comorbidities need a hysterectomy (fibroid, rupture uterus).

All of the participants will go through a history interview, physical examination, and ultrasound screening. Preoperative preparation measures include complete blood count (CBC), prothrombin time (PT), partial thromboplastin time (PTT), blood grouping, cross-matching of 4 units of blood, and 1 gm of Tranexmic acid right away. During an operation, procedures vertical incision in the middle. Transversely opening the uterus above the placental top border removal of the fetus. Following uterine packing and anterior positioning of the uterus, bilateral internal iliac artery ligation is performed. Syntocinon infusion is followed by an attempt at placental separation, a lower portion with the placenta is removed if there is adhesion, and uterine artery ligation or a transverse B Lynch suture is used to stop excessive bleeding if necessary. If a hysterectomy was performed but bleeding persisted: Surgery type, length of the procedure, use of blood products, and Aspects of the operation.

#### 2.2. Statistical analysis

Data was examined using IBM SPSS Statistics for Windows, Version 20.0 from IBM SPSS Corp. IBM Corp., Armonk, New York Number and percentage were used to describe the qualitative data. After confirming normality with the Kolmogrov-Smirnov test, quantitative data were characterized using the median and interquartile range for non-parametric data and the mean and standard deviation for parametric data. The acquired results' significance was assessed at the (0.05) level.

#### 3. Results

This study was conducted on 100 patients that were divided into two groups:

Group 1: 60 patients that were conservatively-treated.

Group 2: 40 patients that were radically-treated.

#### 3.1. Study population

#### Table 1.

The mean age was  $34.04 \pm 4.49$  years ( $33.5 \pm 4.61$  years vs.  $34.9 \pm 4.38$  years in the conservatively treated group and the radically treated group, respectively, P = 0.45). While the mean BMI was  $27.4 \pm 3.07 \text{ kg/m}^2$  ( $27.14 \pm 3.37 \text{ kg/m}^2$  vs.  $27.83 \pm 2.63 \text{ kg/m}^2$  in the conservatively treated group and the radically treated group, respectively, P = 0.56). No statistical difference was found between the two groups concerning these two demographics (Figs. 1 and 2).

#### 3.2. Obstetric history

#### Table 2.

54% of our sample were gravida 3 (50% vs. 60% in the conservatively treated group and the radically treated group, respectively, P = 0.85). 62% were found to be para two (62.5% vs. 60% in the conservatively treated group and the radically treated group, respectively, P = 0.63). 73% of our sample did not experience previous abortion (75% vs. 70% in the conservatively treated group and the radically treated group, respectively, P = 0.078). 53% of them have two prior CS (61.6% vs 40% in the conservatively treated group and the radically treated group, respectively, P = 0.57). There was no statistically significant difference between both groups regarding these characteristics (Fig. 3).

#### 3.3. Present obstetric characterizations

#### Table 3.

Comparison between the 2 studied groups regarding Ultrasound degree of accretion showed that percentage of accrete was increased in the conservatively treated group and the radically treated group (68.3% vs. 20\%, respectively) (P = 0.01).

There was no statistical significance regarding the gestation period. 46% of them had a gestation period of 35 weeks (43.3% vs. 50% in the

Table 1. Demographic characteristics and body mass index of the studied groups.

	Conservatively- treated group $N = 60$	Radically-treated group $N = 40$	Significance test
Age/years Mean $\pm$ SD	$33.5 \pm 4.61$	34.9 ± 4.38	t = -0.766 P = 0.45
BMI (Kg/m <sup>2</sup> ) Mean $\pm$ SD	27.14 ± 3.37	27.83 ± 2.63	t = -0.55 P = 0.56

t, Student t-test.

p: *P* value greater than 0.05: Nonsignificant; *P* value less than 0.05: Significant; *P* value less than 0.01: highly significant. \*Statistically significant.

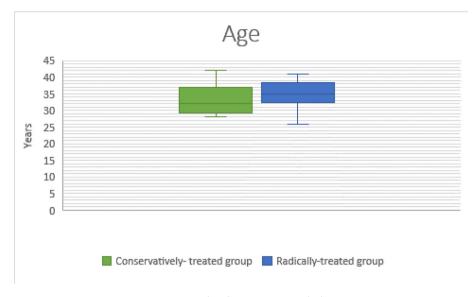


Fig. 1. Mean age distribution among studied groups.

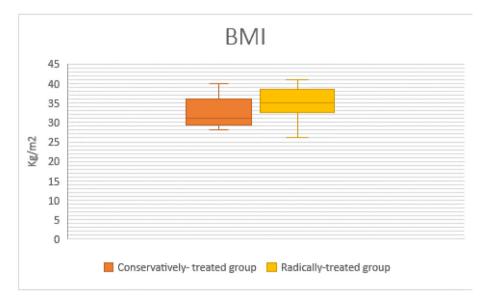


Fig. 2. Mean body mass index distribution among studied groups.

Table 2. Ob	stetric history	of the	studied	groups.
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	Conservatively- treated group $(n = 60)$ No. (%)	Radically- treated group $(n = 40)$ No. (%)	Test of sig.
Gravidity			
2	7 (11.7)	4 (10)	MC $P = 0.85$
3	30 (50)	24 (60)	
4	23 (38.3)	12 (30)	
Parity			
1	22 (37.5)	4 (10)	MC $P = 0.63$
2	38 (62.5)	24 (60)	
3	0	12 (30)	
Previous abortion			
No	45 (75)	28 (70)	$\chi^2=0.078$
Yes	15 (25)	12 (30)	P = 0.78
Prior CS			
1	8 (13.3)	12 (30)	MC $P = 0.57$
2	37 (61.6)	16 (40)	
3	15 (25)	12 (30)	

 $\chi^2$ , Chi square test; MC, Monte Carlo test.

p: *P* value greater than 0.05: Nonsignificant; *P* value less than 0.05: Significant; *P* value less than 0.01: highly significant. \*Statistically significant.

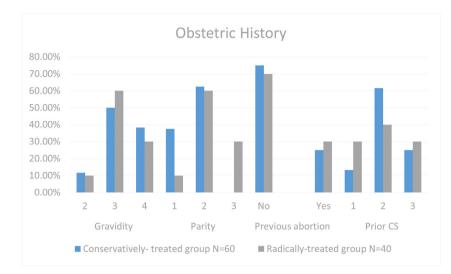


Fig. 3. Obstetric history of the studied groups.

Table 3. Present obstetric characteristics of the studied groups.

	Conservatively- treated group ( $n = 60$ ) No. (%)	Radically- treated group ( $n = 40$ ) No. (%)	Test of Sig.
US degree of accretion			
Acrreta	41 (68.3)	8 (20)	MC $P = 0.01^{a}$
Increta	15 (25)	12 (30)	
Percreta	4 (6.7)	20 (50)	
Gestation			
34 weeks	23 (38.3)	16 (40)	MC $P = 0.98$
35 weeks	26 (43.3)	20 (50)	
36 weeks	11 (18.3)	4 (10)	
Surgery			
Elective	53 (88.3)	12 (30)	$\chi^{2} = 8.99$
Emergency	7 (11.6)	28 (70)	$P = 0.003^{a}$
Operation time (min) Mean ± SD	$185.5 \pm 18.24$	$232.2 \pm 33.3$	$t = -4.63 P = 0.001^{\circ}$

 $\chi^2$ , Chi square test; MC, Monte Carlo test; t, Student *t*-test.

p: *P* value greater than 0.05: Nonsignificant; *P* value less than 0.05: Significant; *P* value less than 0.01: highly significant.

<sup>a</sup> Statistically significant.

conservatively treated group and the radically treated group, respectively, P = 0.98).

As for the type of surgery, elective surgery was significantly increased in the conservatively treated group and the radically treated group (88.3% vs. 30%, respectively, P = 0.003).

The mean operation time was decreased in the conservatively treated group and the radically treated group (185.5  $\pm$  18.24 min. vs. 232.2  $\pm$  33.3 min, respectively, *P* = 0.001) (Figs. 4 and 5).

#### 3.4. Laboratory investigations

#### Table 4.

There was no significant difference between the two groups regarding; mean preoperative hemoglobin (P = 0.49), the mean preoperative hematocrit (P = 0.31), the preoperative INR (P = 0.35) and the postoperative INR (P = 0.07).

Postoperative hemoglobin was increased in the conservatively treated group and the radically treated group (9.88  $\pm$  0.48 gm/dl vs. 8.17  $\pm$  0.42 gm/dl, respectively, *P* = 0.001).

Hematocrit increased in the conservatively treated group and the radically treated group (29.07  $\pm$  0.75% vs. 23.42  $\pm$  0.64%, respectively, *P* = 0.001) (Figs. 6 and 7).

#### 3.5. The clinical outcomes

#### 3.5.1. The maternal outcomes

Table 5.

There was no statistically significant difference between the two groups regarding the studied

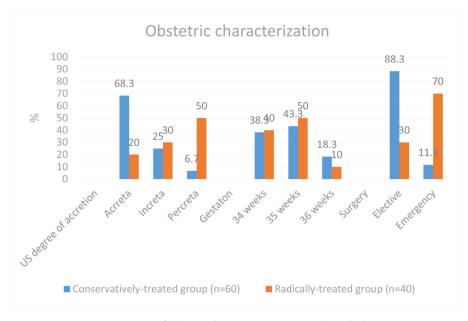


Fig. 4. Percentage of obstetric characterization among the studied groups.

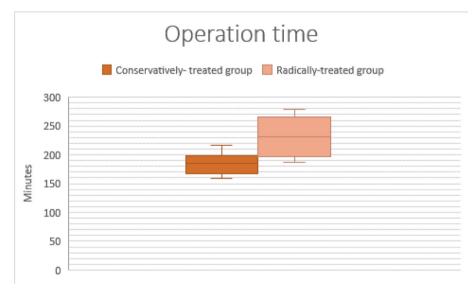


Fig. 5. Mean operation time among the studied groups.

Table 4.	Laboratory	findings	of the	studied	groups.

	Conservatively- treated group	Radically- treated group	Significance test
Preoperative hemoglobin (gm/dl)	$11.23 \pm 0.39$	$11.1 \pm 0.44$	$t = 0.68 \ P = 0.49$
Postoperative hemoglobin (gm/dl)	$9.88 \pm 0.48$	$8.17 \pm 0.42$	$t = 9.45 P = 0.001^{**}$
Preoperative hematocrit (%)	$33.03 \pm 0.61$	$32.84 \pm 0.32$	$t = 0.92 \ P = 0.31$
Postoperative hematocrit (%)	$29.07 \pm 0.75$	$23.42 \pm 0.64$	$t = 9.76 \ P = 0.001^{**}$
Preoperative INR	$0.93 \pm 0.07$	$0.968 \pm 0.11$	t = -0.95 P = 0.35
Postoperative INR Median (IQR)	1.07 (1.01–1.2)	1.4 (1.04–1.93)	U = 54.2 P = 0.07

 $\chi^2$ , Chi square test; t, Student *t*-test; U, Mann Whitney U test.

p: *P*-value greater than 0.05: Non-significant; *P* value less than 0.05: Significant; *P* value less than 0.01: highly significant. \*Statistically significant.

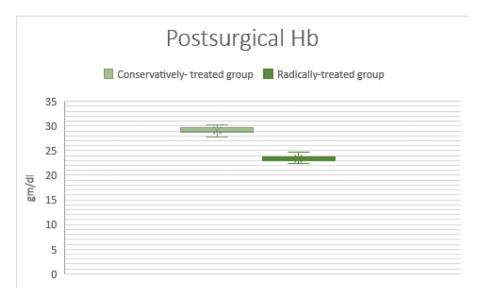


Fig. 6. Mean postsurgical hemoglobin among the studied groups.

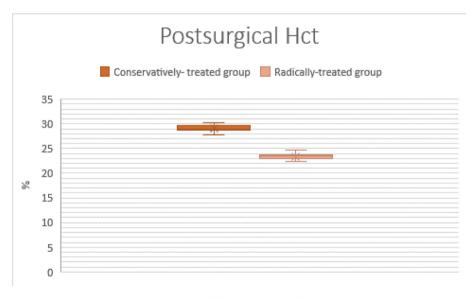


Fig. 7. Mean postsurgical hematocrit among the studied groups.

	Conservatively- treated group ( $n = 60$ ) No. (%)	Radically- treated group $(n = 40)$ No. (%)	Test of Sig.
ICU admission	7 (11.7)	4 (10)	
Internal hemorrhage	3 (71.4)	3 (75)	MC $P = 0.105$
Pelvic hematoma	1 (14.3)	1 (25)	
Pulmonary embolism	1 (14.3)	0	
Bladder injury	5 (8.3)	2 (5)	$\chi^2 = 2.36 P = 0.63$
Postpartum endometritis	4 (6.7)	0	$\chi^2 = 2.12 \ P = 0.16$
Septicemia	3 (5)	0	$\chi^2 = 1.35 \ P = 0.26$

Table 5. Maternal outcomes of the studied groups.

 $\chi^2$ , Chi square test.

p: *P* value greater than 0.05: Nonsignificant; *P* value less than 0.05: Significant; *P* value less than 0.01: highly significant. \*Statistically significant.

maternal outcomes. 11% of our sample were admitted to the ICU (11.6% vs. 10% in the conservatively treated group and the radically treated group, respectively, P = 0.1). 7% of them endured bladder injury (8.3% vs. 5% in the conservatively treated group and the radically treated group, respectively, P = 0.12). 6.7% of the conservatively treated group experienced postpartum endometritis, P = 0.16. Finally 5% experienced septicemia in the conservatively treated group, P = 0.26 (Figs. 8 and 9, Table 6).

# 3.5.2. *The total blood therapy* Table 7.

65% of our sample consumed (3–6) packed RBC units with no statistically significant between the two groups (61.7% vs. 70% in the conservatively treated group and the radically treated group, respectively, P = 0.12). While 92.3% of them consumed more than three plasma units (100% vs. 80% in the conservatively treated group and the radically treated group, respectively, P = 0.28) (Fig. 10).

#### 3.5.3. The neonatal outcomes

#### Table 8.

We experienced 30% mortality of the neonates in the radically treated group, P = 0.02, and this is a statistically significant difference between the two

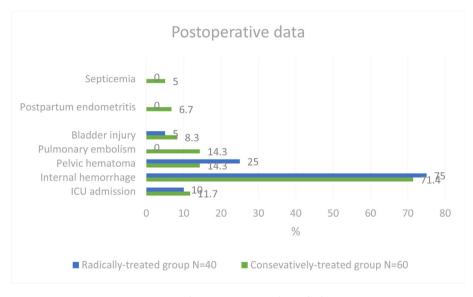


Fig. 8. Maternal Outcomes among the studied groups.

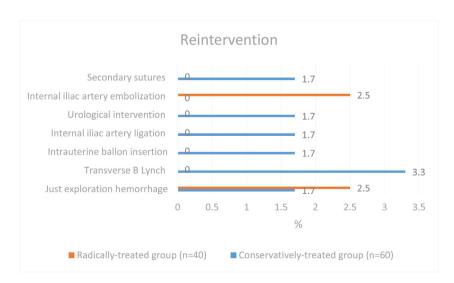


Fig. 9. Reintervention among the studied cases.

	Conservatively- treated group ( $n = 60$ ) No. (%)	Radically- treated group $(n = 40)$ No. (%)	Test of Sig.
Just exploration Hemorrhage N	1 (1.7)	1 (2.5)	$\chi^2 = 0.12 \ P = 0.72$
Transverse B Lynch	2 (3.3)	0	$\chi^2 = 1.4 \; P = 0.25$
Intrauterine balloon insertion	1 (1.7)	0	$\chi^2 = 0.65 \ P = 0.42$
Internal iliac artery ligation	1 (1.7)	0	$\chi^2 = 0.65 \ P = 0.42$
Urological intervention	1 (1.7)	0	$\chi^2 = 0.65 \ P = 0.42$
Internal iliac artery embolization	0	1 (2.5)	$\chi^2 = 1.67 \ P = 0.19$
Secondary sutures	1 (1.7)	0	$\chi^2 = 0.65 \ P = 0.42$

Table 6. Reintervention among the studied cases.

 $\chi^2$ , Chi square test.

p: *P* value greater than 0.05: Nonsignificant; *P* value less than 0.05: Significant; *P* value less than 0.01: highly significant. No statistically significant difference between the two groups regarding reintervention.

Table 7. Total blood therapy.

	Conservatively- treated group ( $n = 60$ ) No. (%)	Radically- treated group $(n = 40)$ No. (%)	Test of Sig.
Packed RBCs uni	its		
<3	23 (38.3)	4 (10)	MC $P = 0.63$
3-6	37 (61.7)	28 (70)	
7-9	0	4 (10)	
$\geq 10$	0	4 (10)	
Plasma units			
<3	60 (100)	32 (80)	$\chi^2 = 3.54 \ P = 0.28$
3-6	0	8 (20)	

 $\chi^2$ , Chi square test; MC, Monte Carlo test.

p: *P* value greater than 0.05: Nonsignificant; *P* value less than 0.05: Significant; *P* value less than 0.01: highly significant. \*Statistically significant.

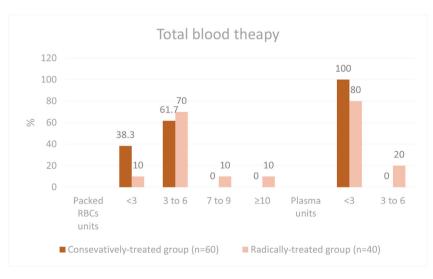


Fig. 10. Percentage of packed red blood cell units in the studied groups.

groups. Yet 30.7% of them were admitted to the neonatal intensive care unit (NICU) (25% vs. 40% in the conservatively treated group and the radically treated group, respectively, P = 0.65) and this is not a statistically significant difference. The mean neonatal body weight 3228.03 ± 122.19 g versus 2670.1 ± 285.11 g in the conservatively treated group

and the radically treated group, respectively, P = 0.001). The median of the Apgar score at 5 min was 7 (6–8) (7 (6–8) in the conservatively treated group compared with 5 (3–6) in the radically treated group, P = 0.004). Both of the two outcomes were statistically significant between the two groups (Figs. 11–13).

Table 8. Neonatal outcomes of the studied group
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	Conservat treated gr	ively- oup $N = 60$	Radically-treated group $N = 40$		Significance test
Neonatal mortality	0	0	12		$\chi 2 = 5.42 \ P = 0.02^{a}$
Neonatal body weight (grams)	$3228.03 \pm$	122.19	$2670.1 \pm$	285.11	$t = 6.93 P = 0.001^{a}$
Apgar 5-min score Median (IQR)	7 (6-8)		5(3-6)		$U = 35.5 P = 0.004^{a}$
NICU admission	15	25	16	40	
Prematurity	3	20	5	31.25	MC $P = 0.42$
Congenital anomalies	1	6.7	2	12.5	
Jaundice	7	46.6	5	31.25	
RDS	4	26.7	4	25	

 $\chi^2$ , Chi square test; t, Student *t*-test; U, Mann Whitney U test; RDS, respiratory distress syndrome.

p: *P* value greater than 0.05: Nonsignificant; *P* value less than 0.05: Significant; *P* value less than 0.01: highly significant.

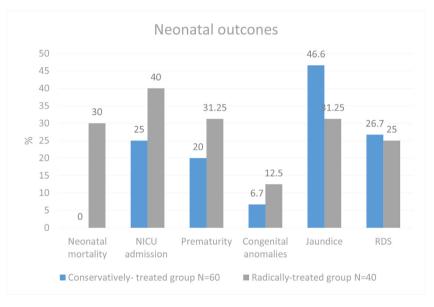


Fig. 11. Neonatal outcomes of the studied groups.

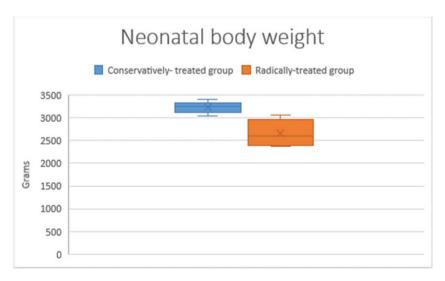


Fig. 12. Neonatal body weight distribution among the studied groups.

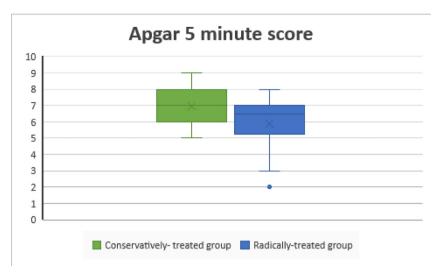


Fig. 13. Median Apgar 5 min score among the studied group.

#### 4. Discussion

The aim of expectant care is to decrease maternal morbidity during CS for PAS illnesses. When the placenta is physically removed under pressure, there is a higher risk of severe hemorrhage, hysterectomy, coagulopathy, and damage to surrounding organs.<sup>16–20</sup>

This study aims to assess the effectiveness and negative consequences of various PA percreta treatment approaches.

In this study, 100 women with PP accreta took part. In the current study, the mean ages of the two groups were 33.5 4.61 and 34.9 4.38, respectively, showing no appreciable difference in age between them. Gelany et al. found maternal age of more than 32 years as a risk factor for PAS issues (Gelany et al., 2019). This can be explained by the possibility of PP and past uterine surgery in older moms, which raises the probability that PAS will manifest in these older women. Additionally, it could be brought on by degradation of the arterial endothelial lining due to age.<sup>21</sup>

The two groups' respective mean BMIs in the current study were 27.14, 3.37, and 27.83, 2.63, respectively, indicating no appreciable variation in BMI between the two groups. Farquhar and his colleagues showed that women with PA had higher BMIs.<sup>22</sup>

In the current research, both of the two groups showed evidence of past CS. Fitzpatrick et al. investigated risk factors for PAS problems and found that prior CS birth was a significant risk factor.<sup>23</sup> This makes sense given that oxygen tension affects whether cytotrophoblasts proliferate or invade, which in turn regulates placental development, and that the human fetus grows in a moderately hypoxic environment. Embryos may decide to implant into areas of uterine scarring because of the reduced vascularization and lower oxygen tension.<sup>24</sup>

In the current study, there was no appreciable difference in gestational age between the 2 groups because all of the enrolled women were beyond 34 weeks pregnant.

The Royal College of Obstetricians and Gynaecologists (RCOG) advises avoiding doing elective CS with PAS patients at 36 weeks of gestation unless an emergency condition occurs, contrary to what was suggested in a previous research.<sup>16,25</sup> Most other suggestions, including those from International Federation of Gynecology and Obstetrics (FIGO) and the American College of Obstetricians and Gynecologists (ACOG), advised elective surgery between 34 and 35 weeks of pregnancy.<sup>16,18</sup>

In the current study, 65% of all patients included received elective surgery, compared with 35% of patients in the radically treated group. The proportion of elective versus emergency surgeries increased in 2017 and decreased in 2014 (80% versus 61% respectively), according to Showman and his coworkers. The decrease in the number of emergency operations may be attributed to increased awareness and early antenatal detection and referral to the tertiary center.<sup>25</sup>

In both elective and emergency instances, the overall outcome was satisfactory, which is consistent with a research that demonstrated that emergency births can still have acceptable outcomes if they are performed in a center of excellence with multidisciplinary team (MDT).<sup>26,27</sup> In the current

investigation, the group that had extreme treatment showed higher invasive levels of accretion.

All of the patients who were a part of this trial underwent blood transfusions. However, 90% of the women who had radical treatment received more than 3 units of packed RBCs, as we discovered.

Significant blood loss is the main drawback of cesarean hysterectomy for PAS illnesses.<sup>28</sup> Wright and colleagues found that patients with PAS issues lost an average of 3000 ml of blood during cesarean hysterectomy, requiring an average of 5 packed red blood cell (PRBC) units for transfusion. A blood loss of less than 5000 ml was seen in about 41.7% of females with a confirmed diagnosis of PAS illnesses.<sup>26</sup>

Our results are in agreement with those of Epstein and colleagues who examined 77 women with PAS issues in their research. There was a statistically significant difference in the estimated blood loss between the groups getting conservative therapy and those undergoing hysterectomy (2989 ml vs. 1410 ml).<sup>29</sup>

Our results are consistent with those of other studies published in the literature, which showed that conservative therapy less frequently required blood transfusions than extirpative management (Kayem et al., 2007).<sup>30</sup>

According to a retrospective study comparing expectant treatment to extirpative management in two subsequent periods, the second phase of conservative management witnessed a decrease in blood transfusions, disseminated intravascular coagulation (DIC), hysterectomies, and sepsis.<sup>31</sup>

In the current study, ICU admissions occurred in 20% of the conservatively managed group and 40% of the radically managed group.

In the current study, the rate of ureteric injury was 10-13%, and the incidence of ICU hospitalization was 2-5% as a result of respiratory distress syndrome (RDS) and prolonged anesthesia recovery. PAS is connected to very high maternal morbidity.<sup>26</sup>

#### 4.1. Conclusion

The current study's findings revealed that patients would benefit from the use of the radically treated strategy since they had a decreased incidence of ICU hospitalization, bladder damage, and postpartum endometritis in the radical therapy group.

#### Disclosure

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#### **Conflicts of interest**

The authors declared that there were NO conflicts of Interest.

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