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## Conservative Management of Eclampsia and Severe Pre-eclampsia -- A Bangladesh Experience

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Published: 01/04/2002

### Abstract and Introduction

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#### Abstract

**Objective:** To observe whether the pregnancy can be safely continued for a reasonable period to gain fetal maturity in cases of eclampsia and severe pre-eclampsia.

**Methods:** Fifty-one patients were followed up in a specialized care (eclampsia) unit in Dhaka Medical College and Hospital between January 1998 and October 2000. Twenty-one patients with complaints of headache and blurred vision, and 30 patients with history of convulsion, all at gestational age < 36 weeks, were enrolled for this study. Magnesium sulfate was used to prevent convulsion in severe pre-eclampsia and to control convulsion in eclampsia. After conducting a baseline assessment, pregnancy was continued to gain fetal maturity. Patients were monitored closely. Diastolic blood pressure, 24-hour urinary total protein (UTP), and serum uric acid were chosen as the main parameters to detect the deterioration of a patient's condition. Pregnancy was terminated when deterioration occurred, as determined clinically or by 1 or more of the above parameters. Dexamethasone was used during the waiting period for fetal lung maturity. Patient outcomes were analyzed.

**Results:** At admission, the patients' mean gestational age ( $\pm$  SD) was  $30.65 \pm 2.38$  weeks, and the range was 24-34 weeks. Mean diastolic blood pressure was  $109.06 \pm 11.61$  mm Hg, 24-hour UTP was  $2.25 \pm 1.73$  g/24 h, and serum uric acid level was  $5.5 \pm 1.12$  mg/dL. Pregnancy was continued for a mean of  $13.27 \pm 8.26$  days (range, 3-35 days). Thirty-two babies (62.75%) with birth weight 1.0-2.5 kg ( $2.02 \pm 0.45$ ) were born alive. Six of them (18.75%) weighing between 1.0 and 1.5 kg at birth were referred to the intensive care unit, and 1 (3.13%) weighing 1 kg at birth died within 5 minutes after birth. Among live-born babies, 93.75% were in good condition at the time of discharge from the hospital. Intrauterine death occurred in 19 (37.25%) cases. Twelve of them delivered spontaneously within 7 days of death and 7 required induction. In all cases, maternal condition was satisfactory.

**Conclusion:** In carefully selected cases and with close supervision, pregnancy may be continued in women with eclampsia and severe pre-eclampsia to increase fetal maturity without increasing the risk to the mother.

#### Introduction

Eclampsia and severe pre-eclampsia that develop long before term are associated with increased rates of perinatal mortality and morbidity.

The progression from severe pre-eclampsia to eclampsia is a continuous process; patients with severe pre-eclampsia who remain untreated may develop eclampsia. Occurrence of a seizure that is not attributable to other causes in a pre-eclamptic patient is known as eclampsia. It is conventionally considered to be the end stage of the disorder, but this is an oversimplification. Some patients have only systemic disturbances and the problem can be controlled easily with rapid recovery after delivery. Other patients may become desperately ill with progressive renal failure, disseminated intravascular coagulation (DIC), microangiopathic hemolysis, and liver dysfunction. Thus, convulsions are a marker for severe illness but not always a reliable one. Some patients with pre-eclampsia are more dangerously ill than others with eclampsia.<sup>[1]</sup> If convulsion can be controlled and all other parameters remain indicative of a state of severe pre-eclampsia, women with eclampsia can be treated as if they had severe pre-eclampsia.

The clinical course of these conditions may lead to progressive deterioration of both mother and fetus. Because the

only cure for these conditions is delivery, there is universal agreement that patients should be delivered if severe pre-eclampsia develops after 34 weeks of gestation or if development of convulsion occurs anytime during the gestational period.<sup>[2,3]</sup>

Aggressive management with immediate delivery leads to high neonatal mortality and morbidity resulting from prematurity. Thus, prolonged hospitalization in a neonatal intensive care unit (ICU) is necessary for the majority of surviving newborn infants.<sup>[4-7]</sup> Moreover, a significant proportion of surviving infants have long-term disability.<sup>[8]</sup> Conversely, attempts to prolong pregnancy with expectant management may result in fetal death or asphyxial damage in utero as well as increased maternal morbidity.<sup>[5,7,9]</sup>

It is recognized that termination of pregnancy is the only definitive cure of the pathophysiologic events of pre-eclampsia and eclampsia. So, an arbitrary time period for delivery of all patients with these complications has not been thought to be in the best interest of either the mother or the fetus. But there is considerable disagreement about management of patients with severe pre-eclampsia before 34 weeks' gestation. Some institutions consider delivery to be the definitive therapy for all cases, regardless of gestational age, whereas others recommend prolonging pregnancy in all severely premature pre-eclamptic gestations until 1 of the following occurs: development of fetal lung maturity, development of fetal or maternal distress, or achievement of gestational age of 34 to 36 weeks.<sup>[4,9-11]</sup>

Eclampsia is a grave condition, and as there is a constant threat of eclampsia in cases of severe pre-eclampsia, maternal well-being should always receive priority. However, if convulsive fits can be controlled and the features promptly stabilized with treatment before fetal maturity has been attained, continuation of the pregnancy for a few weeks may be considered.<sup>[12]</sup> Continuation of pregnancy for a few more weeks with the hope of delivering a more mature baby should be weighed against the potential risk conferred by such a procedure. Not only may the underlying disease process flare up at any moment, but there is a considerable risk that the baby will die in utero or become undernourished and that spontaneous premature labor will occur. Thus, only in selected cases is one justified to continue the pregnancy; this requires keeping the patient in the hospital with close monitoring of maternal and fetal condition and strictly following the management protocol recommended for severe pre-eclampsia.<sup>[13]</sup>

We observed, after controlling convulsion, that some patients were unwilling to immediately terminate their pregnancy; this resulted in a 3- to 4-day delay in termination. Although the perinatal death rate was very high, patients were discharged in good condition. On the basis of this experience, we sought to determine whether pregnancy can be continued in cases of eclampsia and severe pre-eclampsia in order to improve neonatal outcome -- without causing any harm to the mother.

## Materials and Methods

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This descriptive study was conducted at Dhaka Medical College and Hospital between January 1998 and October 2000 and included 21 patients with severe pre-eclampsia (with premonitory signs and symptoms of eclampsia, ie, headache, blurred vision, and restlessness) and 30 patients with eclampsia, all of whom were at < 36 weeks' gestation. We selected a 36-week cutoff point for gestational age because of the high neonatal morbidity and mortality among babies born before this cutoff point in our country. Poor neonatal care facilities are the primary reason for this. At our institution, 9352 babies were born in 1999. Of these, 4478 were high-risk pregnancies (unpublished Dhaka Medical College Hospital statistics). The neonatal care unit has only 8 beds with 1 incubator and 2 phototherapy machines. The unit does not admit a baby if a bed is not available. Outside the hospital, there are a few private well-equipped institutions with ICUs. But the cost for care in these units is about 4000Taka (BSD), or about \$70 USD, per day; this cost exceeds most patients' *monthly* income!

All patients had a live fetus at the time of inclusion and all had documented evidence of the disease -- ie, proteinuria, edema, high blood pressure, convulsion -- before management started. Patients with maternal and fetal indications necessitating immediate delivery on admission were not included. Exclusion criteria were as follows: Glasgow Coma Scale < 15, heart failure, severe oliguria, anuria, pulmonary edema, renal failure, HELLP (hemolysis, elevated liver

enzymes, and low platelet count) syndrome, DIC, hepatic failure, recurrent convulsion after magnesium sulfate, gross intrauterine growth retardation, fetal distress (nonreassuring fetal status), and patient unwillingness to stay in the hospital.

All patients were admitted into the Eclampsia Unit of the Obstetrics and Gynecology Department. They came from in and around Dhaka; some of them were referred from other hospitals and health centers, and some came directly to this institution. Those who were referred from other hospitals or health centers had received at least 1 injection of diazepam. Initial management at this institution included the following: intravenous injection of magnesium sulfate, 4 g, administered slowly; magnesium sulfate, 3 g intramuscularly (IM), in each buttock as a loading dose, followed by 2.5 g IM in each alternate buttock every 4 hours for 24 hours; bed rest; oral phenobarbitone, and an antihypertensive (eg, methyldopa, hydralazine, nifedipine) as required. Oral methyldopa, with or without nifedipine, was administered to maintain diastolic blood pressure at a level between 90 and 100 mm Hg. If diastolic blood pressure increased to above 110 mm Hg after magnesium sulfate therapy or despite adequate oral antihypertensive medications, intravenous bolus doses of hydralazine, 5-7 mg, or a continuous intravenous infusion of hydralazine was administered.

All patients underwent 24-hour urine collection for measurement of urinary total protein (UTP). Serum urea, creatinine, uric acid, SGOT, SGPT, and platelet count were determined in all cases. Ultrasonography was performed for estimation of gestational age of the fetus; for this, the last menstrual period and height of the uterus were correlated. During the initial 24-hour observation, all patients received dexamethasone, 12 mg IM, every 12 hours for 48 hours.

Before starting conservative management, patients and their relatives were informed about the management plan and risks and benefits of conservative management. If the patient agreed to continue conservative management of eclampsia, she signed a consent form. After the initial 24-hour observation period, patients were again counseled regarding maternal and perinatal risks and benefits of conservative management.

The goal of the conservative management was to prolong pregnancy until 36 completed weeks or until the onset of either maternal or fetal complications (fetal death, fetal distress, or static growth). Patients were monitored by staff specially trained in eclampsia management. Monitoring included inquiry about any complaints, blood pressure measurement 4 times daily, fetal heart sound auscultation 2 times daily, fetal growth monitoring by ultrasonography every 2 weeks, and repetition of other tests whenever necessary. Patients were instructed to report the development of features such as persistent headaches, insomnia, visual disturbances, epigastric pain, and such other features as uterine contractions, cramps, vaginal bleeding, ruptured membrane, or decreased fetal movement.

Blood pressure was controlled by administering methyldopa and oral nifedipine. The initial dose of methyldopa was 250 mg every 8 hours up to a maximum dose of 500 mg every 6 hours. Nifedipine, 10 mg, was administered every 8 hours up to a maximum dose of 10 mg every 6 hours. The aim of therapy was to keep systolic blood pressure at a level between 140 and 150 mm Hg and diastolic blood pressure at a level between 90 and 100 mm Hg. If diastolic blood pressure rose to 110 mm Hg or above, hydralazine was administered in 1 of 2 ways: 20 mg diluted in 10 cc distilled water, administered by IV directly in 5-mg boluses or 20 mg in 200 cc normal saline, administered by IV drip at the rate of 10 drops per minute and increased as necessary. Dexamethasone therapy was repeated weekly until delivery.

Laboratory evaluations of UTP, urea, uric acid, platelet count, SGOT, and SGPT were repeated weekly whenever initial parameters were higher than normal levels. Otherwise, tests were not repeated because of limited facilities. Fetal evaluation included kick count, auscultation of fetal heart sound, measurement of fundal height, and ultrasonography performed every 2 weeks.

Termination of pregnancy was based on both maternal and fetal indications. Maternal indications for delivery were the following: uncontrolled severe hypertension in spite of the adequate antihypertensive therapy, onset of persistent headache, epigastric pain, vaginal bleeding (abruptio placentae), and ruptured membranes. Fetal indications for delivery included fetal distress (or, nonreassuring fetal status, [as determined by auscultating fetal heart sound and, in some cases, by biophysical profile) fetal death, static growth, and attainment of 36 weeks pregnancy. All patients were

discharged with stable blood pressure levels and 1+ or absent urinary albumin.

Analysis of data included assessment of maternal complications, laboratory findings, days gained during management, and perinatal outcome. Perinatal outcome parameters included mortality, gestational age at delivery, birth weight, birth condition, neonatal complications, and number of days spent in neonatal intensive care. Results were expressed as mean  $\pm$  SD and relative risk.

## Results

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Of 51 patients, 21 were diagnosed with severe pre-eclampsia, and 30 were diagnosed with eclampsia. The average age of the patients was  $25.21 \pm 4.64$  years (range, 17-35 years). Most of the patients were primigravid (68.63%), and no patients had antenatal check-up before admission to the hospital. Average gestational age was  $30.65 \pm 2.38$  weeks (range, 24-34 weeks) (Table 1).

Table 2 shows the patients' conditions at admission. Patients had diastolic blood pressure levels ranging from 90-140 mm Hg with a mean value of  $109.05 \pm 11.61$  mm Hg. Most of the patients (90.2%) had 2+ to 4+ proteinuria, and 74.51% had moderate leg edema. All patients were fully conscious at admission.

Laboratory investigations are shown in Table 3. Urea, SGOT, SGPT, and platelet count were within normal limits. The mean UTP was 2.25g/24 hours (range, 0.12-6.53 g/24 h; serum uric acid was 5.5 mg/dL (range, 3.6-8.7 mg/dL; and serum creatinine was 1.31 mg/dL (range, 0.7-3.6 mg/dL).

Table 4 summarizes pregnancy outcomes. The average pregnancy prolongation was  $13.27 \pm 8.26$  days, with a range of 3-35 days.

Twelve patients reached 36 weeks of gestation. Of these, 5 were at 32 weeks, 3 were at 33 weeks, and 4 were at 34 weeks at the time of recruitment. One of the babies weighed 2.3 kg at birth, 7 weighed 2.4 kg, and 4 weighed 2.5 kg at birth. Prognosis was unsatisfactory for those patients whose gestational age was < 30 weeks (see Discussion, below). Of the 16 patients with gestational age < 30 weeks, only 1 baby survived. The patient came into the study at a gestational age of 28 weeks and pregnancy was continued for another 2 weeks. The baby's birth weight was 1 kg. Lower segment cesarean section was performed because the mother's 24-hour UTP rose from 1.5 g to 3 g and blood pressure could not be controlled satisfactorily.

Intrauterine death occurred in 19 (37.25%) cases. Only 1 patient (1.96%) developed a maternal complication (abruptio placentae) 3 weeks after development of convulsion. Table 5 shows the indication for termination of pregnancy. Eighteen patients, including 12 with intrauterine death, went into spontaneous labor at different ages of gestation. Other pregnancies were terminated for the following reasons (1) no improvement after treatment (n = 7 [13.73%]; although none of these patients had recurrent or persistent seizure, they all had uncontrolled blood pressure and increasing uric acid and total protein values), (2) patient's desire (n = 2 [3.92%]); (3) fetal compromise (n = 15 [29.41%]); (4) attainment of 36 weeks (n = 7 [13.72%]; 12 patients attained 36 weeks gestation, but 5 went into spontaneous labor); (5) premature rupture of membrane (n = 1 [1.96%]); and (6) abruptio placentae (n = 1 [1.96%]).

For the 32 live-born babies, the average birth weight was  $2.02 \text{ kg} \pm 0.45$  (range, 1.0-2.5 kg). Six babies weighing 1.0-1.5 kg at birth were referred to the ICU; 1 of them died 2 days after birth, 1 died 3 days after birth, and 4 were discharged from hospital after 3 weeks.

Table 6 shows the perinatal outcomes before and after 30 weeks of gestation. Live birth occurred in only 12.5% of those whose gestational age was 24-29 weeks and in 85.71% of those whose gestational age was  $\geq 30$  weeks at recruitment. Relative risk of intrauterine death was 6.13 times higher for infants of gestational age < 30 weeks than for those of gestational age  $\geq 30$  weeks (95% CI, 2.66-14.08).

## Discussion

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The first goal of management of severe pre-eclampsia and eclampsia is prevention or control of convulsions and stabilization of the patient's basic cardiovascular status. Administration of magnesium sulfate by an established protocol<sup>[14]</sup> is considered to be the most rapid, efficient, and safe pharmacologic approach for accomplishing this goal.

Hospitalization is an essential part of this management because it is necessary to evaluate the full extent of the effects of the disease process on the mother and fetus. Only in this way can the patient experience minimal physiologic stress while undergoing the laboratory procedures needed to assess maternal conditions, especially renal and hepatic function.

Finally, the aim should be to designate the time of delivery in such a fashion that both the mother and fetus are best able to tolerate delivery while providing the fetus with the maximum chance of extrauterine survival.

Most clinical centers have limited experience in managing such patients. As a result, there are no recommended protocols for conservative management of patients with severe pre-eclampsia and eclampsia. Thus, management has been based on retrospective observations and empiric clinical experience, with an aim to secure safety of the mother first and a secondary goal of safe delivery and survival of the newborn.

We wish to emphasize that the group of patients included in this study were carefully selected. First, they were judged suitable for expectant management if they had no other medical obstetric complications or complications of eclampsia and if they remained stable during the initial 24-hour observation period.

We found that it was possible to prolong pregnancy by an average of  $13.27 \pm 8.26$  days (range, 3-35 days) in our study population. Platelet count, SGOT, SGPT, and serum urea of all patients were within normal limits. Only 24-hour UTP, uric acid, and creatinine values were higher than normal in most of the patients.

Schiff and colleagues<sup>[15]</sup> concluded that the level of proteinuria and the rate of increase in proteinuria during conservative management are not important predictors of maternal or perinatal outcome. In their study, patients whose protein excretion reached 10-20 g/24 h had outcomes and admission-to-delivery intervals similar to those seen in women who had mild proteinuria (< 5 g/24 h).

In our study, the maximum protein excretion was 6.53 g/24 h in a patient whose pregnancy could be continued for only 3 days, and she gave birth to a stillborn baby. The uric acid level of that patient was within the normal limit (4.30 mg/dL). On the other hand, for a patient whose protein excretion was 0.37 g/24 h, pregnancy could be continued for 15 days longer, and she gave birth to a baby weighing 2.5 kg. The uric acid level of this patient was 7.8 mg/dL.

The maximum uric acid level, 8.7 mg/dL, was observed in a patient whose pregnancy could be continued for only 3 days (spontaneous delivery occurred); the birth weight of her baby, who died 24 hours after birth, was only 1 kg. Surprisingly, the 24-hour protein excretion of this patient was only 0.70 g. Thus, it is difficult to say whether uric acid or protein excretion has a more predictive value of pregnancy outcome. Lim and associates<sup>[16]</sup> found only a weak correlation between serum uric acid levels and the severity of disease. They showed a weak correlation between serum uric acid levels and maternal blood pressure and birth weight of the baby.

It is important to note that delivery was delayed until 36 weeks' gestation in 12 patients, and none of those infants required admission to the neonatal ICU. The patients whose gestational age was far away from term (< 30 weeks) during enrollment showed poor prognosis. Sixteen patients had a gestational age between 24 and 29 weeks. Of these, intrauterine death occurred in 14 cases; 2 patients did not respond to treatment, and cesarean section was performed 2 weeks after admission at 30 and 31 weeks, respectively. Both of these babies were transferred to the ICU; their birth weights were 1 kg and 1.2 kg, respectively. One survived and the other died 2 days after birth.

Lin and coworkers<sup>[17]</sup> reported the outcome of perinatal death in 95 pre-eclamptic pregnancies at < 30 weeks'

gestation. Their study was conducted at the Chicago Lying-In-Hospital between 1958 and 1976; the patients were diagnosed with hypertensive disorder of pregnancy.

Martin and Tupper<sup>[9]</sup> reported on 55 patients with severe pre-eclampsia who were treated conservatively; 9 were between 24 and 30 weeks' gestation. Two of the 9 pregnancies resulted in stillbirths, and 1 ended in neonatal death. Goodlin and colleagues<sup>[18]</sup> reported on 11 patients with severe pre-eclampsia who were treated conservatively; 4 were at 24-27 weeks' gestation. Two of these 4 gave birth to stillborn babies, and 1 died during the neonatal period; 2 survived. Moore and Redman<sup>[19]</sup> reported on 24 patients with severe pre-eclampsia before 34 weeks' gestation who were treated conservatively. Of these, 4 patients had onset of symptoms during midtrimester that resulted in 2 stillbirths and 2 neonatal deaths. On the basis of these data, it is clear that if severe pre-eclampsia develops before 30 weeks of gestation, the result of conservative management is not satisfactory, which is consistent with the findings of the current study.

Maternal morbidity was not high in our study. Only 1 patient developed abruptio placentae 3 weeks after her admission; her convulsions had occurred at 28 weeks of gestation. Sibai and colleagues<sup>[20]</sup> found high maternal morbidity in patients with severe pre-eclampsia who were conservatively managed, which is not consistent with the results of our study. Conservative management did not significantly improve perinatal outcome in this series, as intrauterine death occurred in almost all cases of midtrimester pregnancy. However, the maternal condition was quite stable in the majority of cases during continuation of pregnancy.

No death or major complication developed in this series. During discharge, all patients had stable blood pressure and 1+ or absent urinary albumin. The mean time interval between delivery and discharge was similar to that of other patients who were not enrolled in this series. Because of cultural and socioeconomic conditions, almost all patients were lost to follow-up after discharge. Even though counseling was offered, no patient came for follow-up. The limitation of this study, then, is that we are not able to follow up on the long-term effects of conservative treatment of these patients.

## Conclusion

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We conclude that in selected cases, with close monitoring and supervision, conservative management can be attempted in cases of severe pre-eclampsia and eclampsia after 30 weeks of gestation. This is especially important in developing countries, where neonatal intensive care is either nonexistent or beyond the reach of many patients. Further controlled trials involving a larger number of patients are needed to establish the safety of the protocol.

## References

1. Redman CWG. Eclampsia still kills. *BMJ*. 1988;296:1209-1210.
2. Sibai BM. Management of eclampsia. *Clin Perinatol*. 1991;18:793-808.
3. Donald I. *Practical Obstetric Problems*, 5th ed. London: Lloyd-Luke Medical Books; 1990: 284-320.
4. Derham RJ, Hawkins DF, de Vries LS, Aber VW, Elder MG. Outcome of pregnancies complicated by severe hypertension and delivered before 34 weeks: stepwise logistic regression analysis of prognostic factors. *Br J Obstet Gynaecol*. 1989;96:1173-1181.
5. Chua S, Redman CWG. Prognosis for preeclampsia complicated by 5 gm or more of proteinuria in 24 hours. *Eur J Obstet Gynecol Reprod Biol*. 1992;43:9-12.
6. Sibai SM, Spinnato JA, Watson DL, Hill GA, Anderson GD. Pregnancy outcome in 303 cases with severe preeclampsia. *Obstet Gynecol*. 1984;65:319-325.
7. Odendaal HJ, Pattinson RC, du Toit R. Foetal and neonatal outcome in patients with severe preeclampsia delivered before 34 weeks. *S Afr Med J*. 1987;71:555-558.
8. Sibai BM, Anderson GD, Abdella TN, et al. Eclampsia. III. Neonatal outcome, growth and development. *Am J Obstet Gynecol*. 1983;146:307-316.
9. Martin TR, Tupper WR. The management of severe toxemia in patients at less than 36 weeks' gestation. *Obstet*

- Gynecol. 1979;54:602-605.
10. Odendaal JH, Pattinson RC, Bam R, Grove D, Kotze TJW. Aggressive or expectant management for patients with severe preeclampsia between 28-34 weeks' gestation: a randomised controlled trial. *Obstet Gynecol.* 1990;76:1070-1075.
  11. Fenakel K, Fenakel G, Appelman Z, et al. Nifedipine in the treatment of severe preeclampsia. *Obstet Gynecol.* 1991;77:331-337.
  12. Anderson WA, Harbert GM. Conservative management of pre-eclamptic and eclamptic patients: a re-evaluation. *Am J Obstet Gynecol.* 1977;129:260-266.
  13. Dutta DC. *Text Book of Obstetrics*, 2nd ed. Calcutta: New Central Book Agency ; 1991: 235-255.
  14. Eclampsia Working Group. Eclampsia in Bangladesh. A review and guideline. *Bangladesh Journal of Obstetrics and Gynaecology.* 1997;12:1-27.
  15. Schiff E, Friedman SA, Kao L, Sibai BM. The importance of urinary protein excretion during conservative management of severe preeclampsia. *Am J Obstet Gynecol* 1996;175:1313-1316.
  16. Lim KH, Friedman SA, Ecker JL, Kao L, Kilpatrick SJ. The clinical utility of serum uric acid measurements in hypertensive diseases of pregnancy. *Am J Obstet Gynecol.* 1998;178:1067-1071.
  17. Lin CC, Lindheimer MD, River P, Moawad AH. Fetal outcome in hypertensive disorders of pregnancy. *Am J Obstet Gynecol.* 1982;142:255.
  18. Goodlin RC, Cotton DB, Haesslein HC. Severe edema proteinuria-hypertension gestosis. *Am J Obstet Gynecol.* 1978;132:595.
  19. Moore MP, Redman CWG. Case-control study of severe preeclampsia of early onset. *BMJ.* 1983;287:580.
  20. Sibai BM, Taslimi M, Abdella TN, et al. Maternal and perinatal outcome of conservative management of severe preeclampsia in midtrimester. *Am J Obstet Gynecol.* 1985;152:32-37.

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Mosammat Rashida Begum Mr, Akhter S, Begum A, Khatun M, Quadir E, Choudhury SB. Conservative Management of Eclampsia and Severe Pre-eclampsia -- A Bangladesh Experience. *MedGenMed* 4(1), 2002 [formerly published in *Medscape Women's Health eJournal* 7(1), 2002]. Available at: <http://www.medscape.com/viewarticle/415127>.

### Funding Information

**Mosammat Rashida Begum, MBBS, FCPS**, has no significant financial interests to disclose.

Medscape General Medicine. 2002;4(1) © 2002 Medscape

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