

Try Stepwise Tactics for Late Postpartum Headache

The study population had severe headaches that started 25 hours to 32 days post partum.

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Evaluating persistent headache that presents more than 24 hours after delivery requires a stepwise, multidisciplinary approach, Dr. Caroline Stella said at the annual meeting of the Society for Maternal-Fetal Medicine.

Postpartum headache affects 11%-80% of women after delivery, and usually is benign. Little has been known about headaches that start more than a day after delivery.

Dr. Stella of the University of Cincinnati and her associates retrospectively studied records for 95 women with severe headaches that started 25 hours to 32 days post partum and were unresponsive to usual doses of analgesics.

Approximately half of the women (47 patients) ultimately were diagnosed with tension-type or migraine headaches, and all responded to higher doses of analgesics or narcotics.

Twenty-three women (24%) with headaches caused by preeclampsia or eclampsia were treated with magnesium sulfate or antihypertensives; one had a cerebral venous thrombosis, and one had a subarachnoid hemorrhage.

Fifteen women (16%) had a final diagnosis of spinal headache. All received an anesthesiology consultation and initially were treated with analgesics. Twelve pa-

tients (13%) eventually required a blood patch. Headaches caused by other abnormalities in 10 women (11%) were treated with anticonvulsants, anticoagulants, or a dopamine antagonist.

Some patients had overlapping diagnoses. In 78 women, the headaches started while they were in the hospital; the other 17 were readmitted after postpartum discharge. Cesarean deliveries had been performed in 28 women.

Of the 95 women, 22 (23%) underwent cerebral imaging studies. Indications for imaging included persistent visual changes in 14 patients, focal neurologic deficits in 8, refractory headache in 8, and other reasons.

Neurologic symptoms other than headache resolved in 20 of the 22 women. Two patients were left with residual facial droop. No patients died.

On the basis of the study's findings, Dr. Stella and her associates recommended the following algorithm for work-up of postpartum headache presenting after 24 hours.

If neurologic deficits are present, perform cerebral imaging right away. If no neurologic deficits are present in a normotensive patient without proteinuria, treat for presumed migraine or tension-type headache.

If that therapy doesn't work and the patient has a history of regional anesthesia placement, consider the diagnosis of post-

dural puncture headache. Give intravenous fluids and analgesia, and consider administering a blood patch. If the headache still doesn't respond to therapy, perform cerebral imaging.

Presume a diagnosis of preeclampsia or eclampsia in women with hypertension or proteinuria and administer magnesium sulfate and antihypertensive agents. If the headache is unresponsive, perform cerebral imaging.

Eclampsia increased the risk for cognitive dysfunction years later in a separate case-control study of 87 women presented in a poster session by Annet M. Aukes, a medical student at the University of Groningen (the Netherlands).

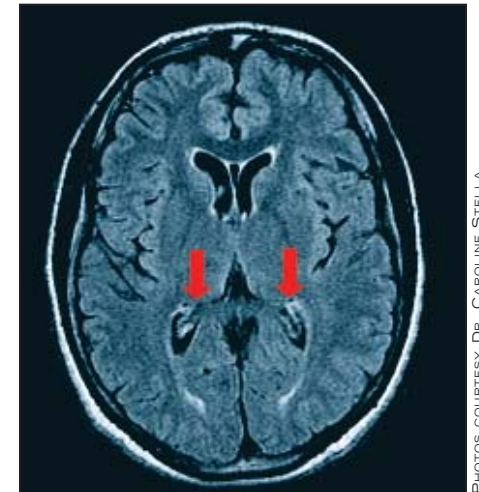
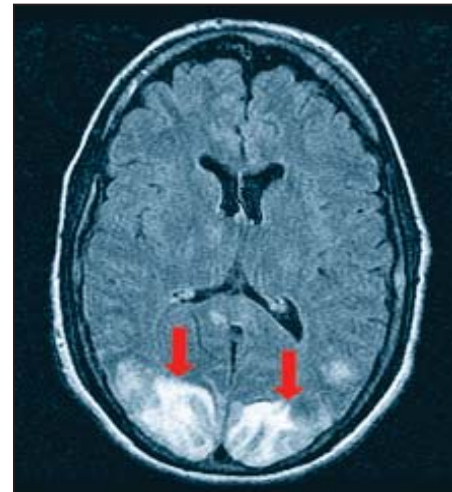
From 6 to 8 years after their eclampsia episodes, 29 women were matched by age and year of pregnancy with formerly

preeclamptic women and normotensive controls. All completed a validated Cognitive Failures Questionnaire designed to assess the likelihood of committing a cognitive error in an everyday task.

The women with a history of eclampsia scored significantly worse, compared with preeclamptic women or controls. The paradigm that eclamptic women can expect a full recovery should be reevaluated, she said in an interview.

"It's very important that these women are treated adequately right away when they come in with headaches so we can prevent more eclamptic seizures," Ms. Aukes said.

These women need support months and years later to understand that their dysfunction is not psychological but caused by white matter lesions, she added. ■



MRI of a patient's brain show cerebral edema (red arrows, left) in the occipital lobes and, on follow-up, complete resolution of the edema (red arrows, right).

PHOTOS COURTESY DR. CAROLINE STELLA

CLIA Makes P/C Ratio Better Choice for Suspected Preeclampsia

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Getting a protein-to-creatinine ratio was more helpful than using a urine dipstick to measure proteinuria in patients with suspected preeclampsia, according to a retrospective cohort study.

The protein to creatinine (P/C) ratio correlated strongly with a 24-hour urine protein measurement, which is the standard for quantifying protein. The P/C ratio had a 90% correlation

with 24-hour urine protein measurements, compared with only a 58% correlation between the urine dipstick and 24-hour urine protein measurements, Jasmine Lai and associates reported in a poster presentation at the annual meeting of the Society for Maternal-Fetal Medicine.

Investigators analyzed data on 140 women with suspected preeclampsia who had both a dipstick and 24-hour protein measurement, 177 who had both a P/C ratio and 24-hour protein measurement, and 244 who had

both a dipstick and P/C ratio. The different assays were performed within 48 hours of each other for each patient.

The P/C ratio was a more sensitive marker for proteinuria, with a sensitivity of 75%, compared with dipstick's sensitivity of 44%, reported Ms. Lai, a student at the University of California, San Francisco, who conducted the study while a summer fellow at the University of California, San Diego.

Now that getting a dipstick measurement has been encumbered by the Clinical Laboratory Improvement Amendments law, it's just as fast and efficient to get a P/C ratio, Dr. Douglas Woelkers, the primary investigator in the study, said in an interview.

"Nurses now can't do

dipsticks in the [labor and delivery] setting. Our hospital requires that all dipsticks go down to the laboratory to be read by machine. Why not get the more accurate P/C ratio, because it takes the same time to get a result back, and it's the same expense compared with the dipstick?" said Dr. Woelkers of the University of California, San Diego.

The dipstick underestimated proteinuria 44%-48% of the time, he added. Patients with a false-negative dipstick and mild hypertension would be sent home "only to find out later on that they truly had the disease and we weren't intervening soon enough," he said.

Dipstick measurements were significantly confounded by the method of collection and the presence of blood, squamous cells, white blood cells, or leukocyte esterase, the investigators found.

To confirm the superiority of the P/C ratio, the investigators analyzed adverse maternal or fetal outcomes from delivery records of 209 patients who had both a urine dipstick and a P/C

ratio. They used a composite of three or more markers for severe disease, including thrombocytopenia, elevated liver function tests, high creatinine level, low Apgar score, low birth weight, and maternal hospitalization longer than 3 days.

The P/C ratio was more accurate than the dipstick in predicting adverse outcomes because it more accurately measured proteinuria, Dr. Woelkers said. The P/C ratio had a sensitivity of 50% for composite adverse outcomes and a specificity of 72%. Taking one or more dipstick measurements was 35% sensitive and 81% specific for predicting adverse outcomes. Taking two or more dipstick measurements was 24% sensitive and 83% specific for adverse outcomes. Dr. Woelkers' hospital has converted entirely to doing P/C ratios instead of dipsticks for patients with suspected preeclampsia.

Further research will be needed to see if it makes sense to switch from dipsticks to P/C ratios for patients with suspected preeclampsia in office settings, not just in hospitals, he added. ■

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