Transcript Details
This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: https://reachmd.com/programs/neurofrontiers/measuring-migraine-cgrp/49217/

ReachMD
www.reachmd.com
info@reachmd.com
(866) 423-7849

Measuring Migraine: The Potential of CGRP

Announcer:
You're listening to *NeuroFrontiers* on ReachMD. On this episode, Dr. Shradha Kakde will discuss her recent study, which explored the potential of serum calcitonin gene-related peptide levels to support migraine diagnosis. Dr. Kakde is a medical graduate from MGM Medical College and Hospital in Maharashtra, India, and she presented this study at the 2026 American Headache Society's Annual Scientific Meeting.

Let's hear from her now.

Dr. Kakde:
I think one of the biggest frustrations in headache medicine is that migraine is still diagnosed almost entirely based on symptoms. Even though migraine is one of the leading causes of disability worldwide, we still do not have an objective blood test or biomarker that can support the diagnosis in routine clinical practice.

That was really the motivation behind our study. CGRP, or calcitonin gene-related peptide, has become extremely important in migraine research over the past few decades. We know it plays a major role in trigeminal activation, neurogenic inflammation, and migraine pathophysiology, and probably the strongest evidence supporting its importance is the success of CGRP-targeted therapies, including monoclonal antibodies and gepants, which have significantly changed migraine treatment.

So the question we wanted to answer was whether serum CGRP levels could potentially support the diagnosis of migraine. To do this study, we performed a PRISMA-compliant systemic review and meta-analysis using PubMed, Embase, and Cochrane Central through January 2026. We included cohort and case control studies that evaluated serum CGRP levels in adults with migraine compared with controls.

We found that serum CGRP demonstrated good diagnostic performance for migraine, with pooled sensitivity of 82 percent and specificity of 79 percent. The area under curve, or AUC, was 0.86, which suggested fairly strong diagnostic accuracy for a biomarker in neurology.

We also found a diagnostic odds ratio of 15.2, meaning that patients with migraine had significantly higher odds of testing positive compared with controls. The positive likelihood ratio was 3.9, while the negative likelihood ratio was 0.23, showing that both positive and negative results can meaningfully influence diagnostic probability.

One of the most interesting findings came from the subgroup analysis. CGRP performed much better when measured during the active migraine attack compared with measurements taken between attacks. Sensitivity during attacks reached 87 percent compared with 76 percent interictally. We also observed better performance in episodic migraine compared with chronic migraine.

But I think the most important thing for me personally was how the data changed my perspective on CGRP clinically. Initially, I wondered whether CGRP could eventually function as a standalone diagnostic test for migraine. However, after analyzing the data more carefully, it became clearer to me that CGRP is probably better viewed as a supportive biomarker rather than definitive diagnostic tool.

Announcer:
That was Dr. Shradha Kakde talking about the role of serum calcitonin gene-related peptide levels in migraine diagnosis. To access this and other episodes in our series, visit *NeuroFrontiers* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!