

## CASE REPORT

# Incidentally Discovered Colpocephaly and Corpus Callosum Agenesis in Asymptomatic Elderly Patient

Taofik Nasrat, Navid Seraji-Bozoergzad

Wayne State University Detroit Medical Center, Detroit, Michigan, USA.

Corresponding author: Dr. Taofik Nasrat Email: ntaofik@med.wayne.edu

Published: 30 April 2015

Ibnosina J Med BS 2015;7(2):56-58

Received: 23 January 2014

Accepted: 04 September 2014

This article is available from: <http://www.ijmbs.org>

This is an Open Access article distributed under the terms of the Creative Commons Attribution 3.0 License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

## Abstract

Colpocephaly is very rare anatomic finding in the brain manifested by occipital horns that are disproportionately enlarged in comparison with other parts of the lateral ventricles. It is usually diagnosed prenatally by ultrasound or in early childhood when the patient presents with delayed milestones, seizures, mental retardation, motor and sensory deficit. We present a case of colpocephaly and corpus callosum agenesis that diagnosed in a sixty six years old African American woman that did not suffer from any seizures, cognitive, motor or sensory disability prior to her current admission.

**Key words:** Colpocephaly, Corpus callosum agenesis,

## Introduction

Colpocephaly is a very rare congenital anomalies of the brain that is characterized by dilatation of posterior horns of the lateral ventricles with normal anterior horn of the

lateral ventricle (1,2). Colpocephaly is usually diagnosed in prenatal period, or early childhood as the patient usually suffer from mental retardations, seizures, and delayed motor milestone in early childhood and presence other congenital anomalies like meningomyelocele (1-3). We present the following case with isolated colpocephaly, corpus callosum agenesis in patient without seizures cognitive, motor, sensory manifestation.

## Case report

A sixty six year old African American lady with no prior significant past medical history came to Detroit medical center with decline in her mental status that started month previously. Her son stated that she started to deteriorate after she had back surgery the previous month. Prior to this, the patient was completely normal with no history of seizure, cognitive, motor or sensory impairments. One year prior, she attended the emergency room complaining of headaches and she received treatment and was discharged.

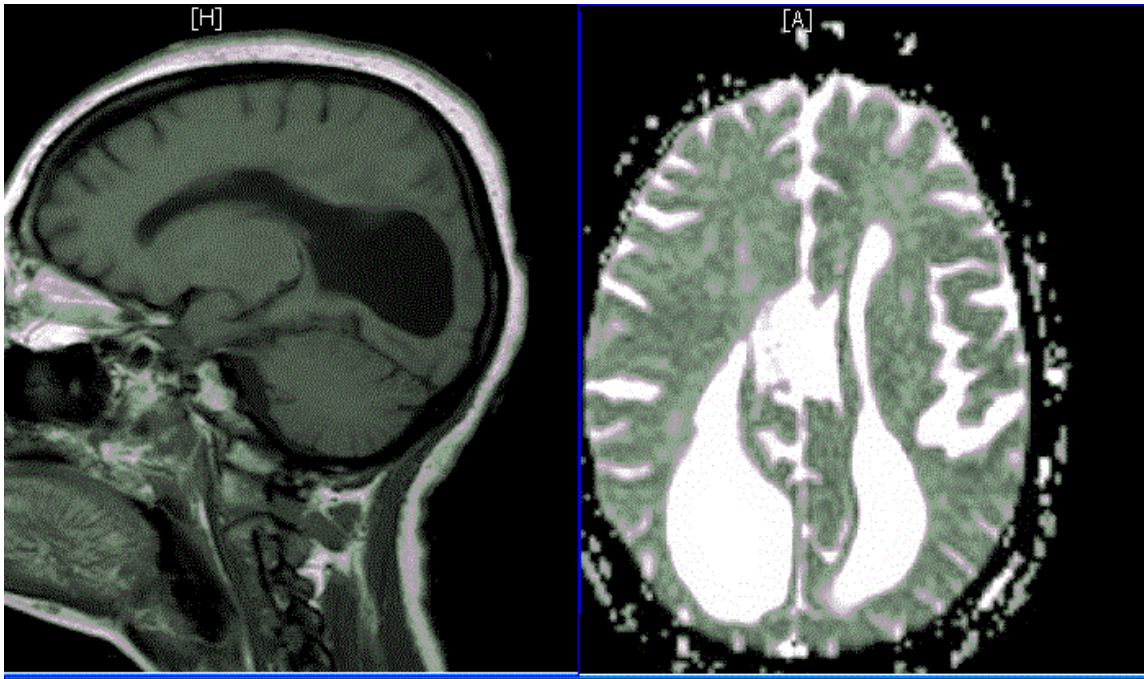


Figure 1. MRI brain showing colpocephaly and corpus callosum agenesis

In the present episode, the patient was drowsy, and open her eyes inconsistently, move her four limbs in response to pain and replies with inappropriate words. Her vital signs were normal. An MRI of the brain which showed colpocephaly and corpus callosum agenesis (Figure 1) that was never seen before. MRI spine at site of the surgery revealed a paraspinal abscess which been treated with aspiration and antibiotic and the patient recovered and discharged in a good condition.

### Discussion

Colpocephaly is an abnormal enlargement of the occipital horn of the lateral ventricle, also described as persistence of the fetal configuration of the lateral ventricles. Since it was first described, colpocephaly has been found in association with several abnormalities of the brain (1-5). Various etiologies have been postulated, including intrauterine/perinatal injuries, genetic disorders, and an error of morphogenesis. Apparently, a specific form of fetal ventricular configuration persists into postnatal life. The occipital horns are disproportionately large and dilated. Colpocephaly with or without corpus callosum agenesis is a rare neuromigrational disorder that happens during the first trimester. It mostly presents with neurological and neurodevelopmental disorder. Therefore, it is diagnosed antenatally or at most within the first year of life (1-4). It is very unusual for the diagnosis of this condition

to be late to adulthood and equally very unusual for the affected individual to be running a normal life without neurodevelopmental or seizures disorder as exemplified by the present case.

Reviewing the literature showed two case-reports of colpocephaly presented in previously normal adults. The first case was reported by Wunderlich *et al*, of a thirty years old adult previously normal presented with complex partial seizures and the brain MRI showed he has colpocephaly (5). The second case was reported by Esenwa *et al* from Columbia University Medical Center (6). It was about a 66 years old lady how was previously normal and her brain MRI showed she has colpocephaly.

The present case report with the previous ones (7,8) increase the awareness of this type of neuromigrational disorder presentation later than earlier in life and to consider them with then differential diagnosis especially with adult idiopathic normotensive ventriculomegaly.

### References

1. Herskowitz J, Rosman NP, Wheeler CB. Colpocephaly: clinical, radiologic, and pathogenetic aspects. *Neurology*. 1985;35(11):1594-8.
2. Garg BP. Colpocephaly. An error of morphogenesis? *Arch Neurol*. 1982 Apr;39(4):243-6.

3. Puvabanditsin S, Garrow E, Ostrerov Y, Trucanu D, Ilic M, Cholenkeril JV. Colpocephaly: a case report. *Am J Perinatol.* 2006;23(5):295-7.
4. Paladini D, Pastore G, Cavallaro A, Massaro M, Nappi C. Agenesis of the fetal corpus callosum: sonographic signs change with advancing gestational age. *Ultrasound Obstet Gynecol.* 2013;42(6):687-90.
5. Wunderlich G1, Schlaug G, Jäncke L, Benecke R, Seitz RJ. Adult-onset complex partial seizures as the presenting sign in colpocephaly: MRI and PET correlates. *J Neuroimaging.* 1996;6(3):192-5.
6. Esenwa CC, Leaf DE. Colpocephaly in adults. *BMJ Case Rep.* 2013;2013. pii: bcr2013009505.
7. Bartolomé EL, Cottura JC, Britos Frescia R, Domínguez RO. Asymptomatic colpocephaly and partial agenesis of corpus callosum. *Neurologia.* 2014; pii: S0213-4853(13)00284-3.
8. Brescian NE, Curiel RE, Gass CS Case study: a patient with agenesis of the corpus callosum with minimal associated neuropsychological impairment. *Neurocase* 2014;20(6):606-14.