 **DOI:** https://doi.org/10.3329/jacedb.v4i20.84981

# From Growth Failure to Gait failure: Arnold-Chiari 1 Malformation in a Teenager

*Koirala SP[1], Islam MR[2], Banu H[3], Sultana N[4], Jahan S[5], Hasanat MA[6]

[1]Satya Prasad Koirala, Resident, Department of Endocrinology, Bangladesh Medical University, Dhaka, Bangladesh; [2]Md. Rafayel Islam, FCPS trainee, Department of Endocrinology, Bangladesh Medical University, Dhaka, Bangladesh; [3]Hurjahan Banu, Associate Professor, Department of Endocrinology, Bangladesh Medical University, Dhaka, Bangladesh; [4]Nusrat Sultana, Associate Professor, Department of Endocrinology, Bangladesh Medical University, Dhaka, Bangladesh; [5]Sharmin Jahan, Professor, Department of Endocrinology, Bangladesh Medical University, Dhaka, Bangladesh; [6]Muhammad Abul Hasanat, Professor, Department of Endocrinology, Bangladesh Medical University, Dhaka, Bangladesh

## Abstract

Arnold-Chiari 1 malformation is a congenital anomaly of the craniovertebral junction, often present with diverse neurological, endocrine, and musculoskeletal manifestation. Growth and pubertal delay may coexist with neurological deficits, making early recognition essential. Here we report a 17 years old male, 3rd issue of non-consanguineous parents admitted to BMU with growth failure for 6-8 years and progressive difficulty in walking along with gait abnormality for 4 years. He experienced chronic occipital headaches, blurring of vision and occasional dizziness. Pubertal delay was evident by underdeveloped secondary sexual character, notably scanty facial hair and under pitched voice. Examination reveals short stature (H-147 cm, SDS -2.6) and delayed puberty (Tanner-P2, Left testis 10 ml, right undescended testis palpable in inguinal region). Neurological signs included dysarthria, tongue fasciculation with wasting, exaggerated deep tendon reflex, planter extensor, positive ankle clonus, wide based gait and other cerebellar dysfunctions. Biochemically GH deficiency was found. MRI of spine showed dysplastic occipital condyle with foramen magnum stenosis, cervico-medullary compression indicating Arnold-Chiari 1 malformation. This case illustrates an unusual presentation of chairi-1 malformation with growth retardation and delayed puberty, emphasizing the importance of multidisciplinary approach for timely diagnosis and management. *[J Assoc Clin Endocrinol Diabetol Bangladesh, 2025;4(Suppl 1): S67]*

**Keywords:** Arnold-Chiari 1 malformation, Growth failure, Delayed puberty

***Presenting and corresponding author:** Dr. Satya Prasad Koirala, Resident, Department of Endocrinology, Bangladesh Medical University, Dhaka, Bangladesh. Contact-01884432344 E-mail: satyakoirala5@gmail.com