Duane's syndrome

Students of neurology commonly encounter, but don't always recognize, a type of congenital squint that arises owing to fibrosis in the lateral rectus muscle, which retracts the globe and narrows the palpebral fissure of the eye when it is adducted. The cause of the primary lesion is often unknown. A not uncommon phenomenon, it was reported by Duane.

In 1905 he described the essential features succinctly in the title of his paper:

"Congenital deficiency of abduction, associated with impairment of adduction, retraction movements, contraction of the palpebral fissure and oblique movements of the eye."

This was later called Duane's retraction syndrome. An autosomal dominant form with four generations described in one kindred was later reported. There are also associations with deafness and the Klippel Feil anomaly, known as the Wildervanck syndrome, and a report of associated congenital defects of the radius.

Alexander Duane (1858–1926) was born in Malone, New York into a distinguished and talented family. A rather authoritarian background probably influenced his work. His father was an army General with a good knowledge of mathematics, which he passed on to his son. His mother, having considerable literary accomplishments, instructed him in English usage that he later employed in contributions to several dictionaries. Duane attended school in Cincinnati and read Medicine at the College of Physicians and Surgeons [Columbia University]. Trained in ophthalmology he practised in New York. In 1903 he translated the Austrian Fuchs's Textbook of Ophthalmology, which ran to eight editions. His work on optics, disordered eye movements, accommodation, and refraction led to election as president of the American Ophthalmological Society in 1924. There were many sides to Duane's character: literary, medical, and naval. He wrote an instructional text on Rules for signalling on land and sea (1899) based on his experience as a lieutenant in the Spanish-American war. Later, he served in the first world war as a rather elderly signal officer.

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2 Cooper H. A series of cases of congenital ophthalmoplegia externa in the same family. BMJ 1910;1:917-8.