Zofia Jankowska[1], Monika Gradzik[2], Mariusz Niemczyk[1]

[1]Department of Transplantology, Immunology, Nephrology, and Internal Medicine; Medical University of Warsaw, Poland
[2]Department of Clinical Radiology; Medical University of Warsaw, Poland

Scoliosis coexisting with autosomal dominant polycystic kidney disease

Corresponding author:

Mariusz Niemczyk, M.D., Ph.D.
Department of Transplantology,
Immunology, Nephrology,
and Internal Diseases;
Medical University of Warsaw
Nowogrodzka 59 St.,
02–006 Warsaw, Poland
tel. +48 22 502 1076
e-mail: mariusz.niemczyk@wum.edu.pl

Medical Research Journal 2024;
Volume 9, Number 2, 243–244
DOI: 10.5603/mrj.100806

ISSN 2451-2591
e-ISSN 2451-4101

ABSTRACT

We present a case of a 49-year-old woman with autosomal dominant polycystic kidney disease and severe scoliosis. Based on current knowledge, we think that co-occurrence of scoliosis and ADPKD is nonrandom in our case, and we hypothesize that scoliosis should be considered a part of clinical picture of ADPKD.

Keywords: autosomal dominant polycystic kidney disease; imaging; scoliosis

Med Res J 2024; 9 (2): 243–244

In a 49 years-old woman with stage 3B chronic kidney disease (CKD) in a course of autosomal dominant polycystic kidney disease (ADPKD), with arterial hypertension well-controlled with 4 antihypertensive medicines, treated with levothyroxine due to hypothyroidism, and with hernia of linea alba, severe scoliosis developed in childhood (Fig. 1).

ADPKD is caused by a mutation in PKD1 or PKD2 gene, encoding polycystin-1 (PC1), or polycystin-2 (PC2), respectively [1]. Due to the fact that PC1 is localized in numerous tissues [2], ADPKD is a multi-organ disease, with multiple extra-renal manifestations [1]. Both polycystins participate in extracellular matrix formation [3], and connective tissue disorders belong to

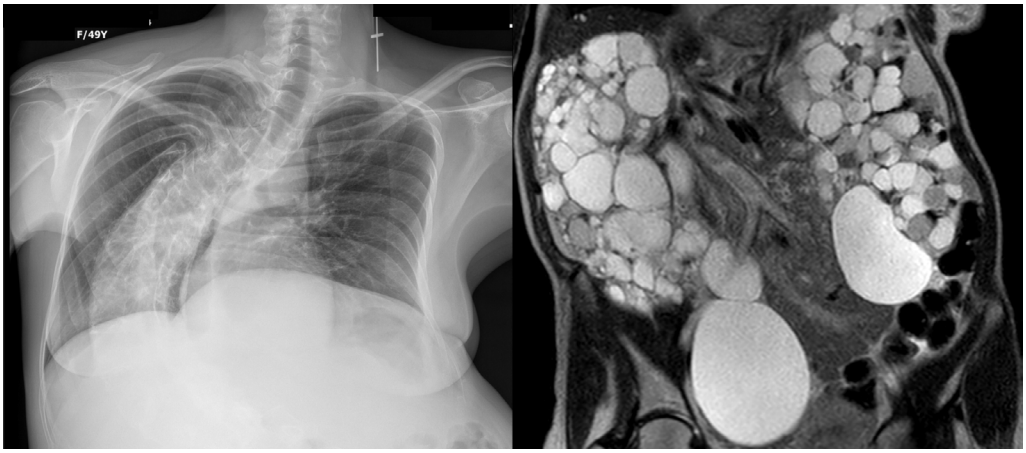

Figure 1. Chest X-ray: severe scoliosis (left panel); magnetic resonance imaging of the abdominal cavity, T2-weighted image, coronal plane: polycystic kidneys, anatomic disturbance secondary to scoliosis (right panel)

the clinical picture of ADPKD, presenting as aneurysms, intestinal diverticula [4] and abdominal hernias [1]. Based on these facts we think that co-occurrence of scoliosis and ADPKD is nonrandom in our case, and we feel that scoliosis should be considered a part of clinical picture of ADPKD. Furter investigations are needed in order to verify our hypothesis.

Article information

Ethics statement: *The patient agreed to publication of her data and images in an anonymous form.*
Authors' contribution: *ZJ: literature review, writing the manuscript; MG: imaging; MN: idea of publication, writing the manuscript.*
Acknowledgements: *Not applicable.*
Conflict of interest: *None declared.*
Supplementary material: *Not applicable.*
Fundings: *No external fundings were obtained for this publication.*

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