

INVESTIGATIONS OF NONSPECIFIC RENAL COLIC

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Abstract: In this period of global pandemic with SARS CoVid-19, which is generally a respiratory infection, but also has consequences for the remaining tissues and organs in the body, and when any symptom and/or clinical sign that is similar, ie. completely coincides with the already known that are caused by the so-called Corona virus, in June 2020 the panic from infection in contact with strangers is already present to a large extent, especially among medical staff. Our case of a patient, whose age is 60 years, which means one of the most vulnerable groups of patients, by profession is a graduate pharmacist, employed in a pharmacy in Radovis, during the epidemic for the entire period of several months. And so the disturbed health, with diagnosed chronic diseases and therapy for the same, more precisely chronic cystitis, Diabetes mellitus type 2, as well as the long-term presence of kidney stones, losing almost 5 kg of the body weight in less than 20 days, forces the patient to call in her home-ambulance with fever of 38° C and nonspecific pain in the right inguinal region, spreading to the right kidney. Due to the complexity of the patient's chronic medical history, the MD prescribes urgent biochemical and hematological analysis of the blood, specific tumor markers of interest, but during the examination, after completing a questionnaire for contact with infected of the Corona virus and auscultation, confirmed the potential infection with CoVid-19, sees the presence of adipose tissue in the region of the left m.trapezius, which over the years has occupied a larger area of the back. After the obtained laboratory results and with included antipyretic therapy, it was referred for examination of the abdomen with EHO in PHI Health Center in Radovish, and computed tomography as well, in PHI Clinical Hospital Stip. The consultants in the field, after receiving the results and reports, certainly ruled out the possible infection and disease of the patient with Covid-19, directing her to change the long-term chronic therapy, antibiotics and surgery on the accumulated fat tissue. Only the application of the recommendations prescribed in accordance with the protocol for work in conditions of pandemic, by medical professionals, the application of personal hygiene and self-isolation in confirmed serological and immunobiological positive cases with Covid-19, can result in reducing the transmission, the risk and virulence of the virus, thus would improve the health and standard of living of all, of our beloved ones, of our patients.

Keywords: renal colic, diagnosis, Covid pandemic, health professionals, self-discipline.

1. INTRODUCTION

The new situation during the spring of 2020, ie the epidemic of the Corona virus worldwide, created a general panic among the population and especially among employees in all spheres of health.^[7] Our patient in this case is 60 years old, diagnosed with a chronic urinary tract infection (antibiotic therapy per os) and the presence of a large calculus in the cups of the right kidney, which does not cause congestion, pain and obstruction in the outflow of urine, although generally reduces renal function.^[1,4] Also, from a few years ago was placed on the chronic therapy tab. Glucophage 500 mg 2x1, due to Dg. Diabetes mellitus 2, and with mandatory glycemic control every three months. She has often undergone surgery to remove subcutaneous fat in various regions of the body (breast, back, forearm) in an outpatient setting. By profession, the patient is a graduated pharmacist with extensive experience and daily contact with patients in the pharmacy, a responsible and conscientious person, towards her health and even more about the public health and condition of other patients.^[11]

2. METHODS AND RESULTS

At the end of June 2020, the patient notices a weight loss, loses appetite and begins to feel unexpected and unknown pain in the right side of the pelvis, followed by a general rise in body temperature to 38° C for 3-4 days. Taking into account the constant personal responsibility for protection at work, such as disinfection, wearing a mask and adequate distance from clients, our patient, self-disciplined at the home clinic for examination. In addition, she filled out a survey questionnaire for contact with any infected with Covid-19, and was examined by the parent, who confidently rejected the suspicion of coronavirus infection, due to the coincidence of no symptoms and/or signs in

the patient with the specifics of the disease.^[3] Further examination, ie auscultation of the lungs, he saw that the existing subcutaneous fat tissue above the left shoulder blade, visibly increased and advised as soon as possible to remove it, and referred the patient to biochemical examinations of blood and urine, as well as ECHO and CT of the abdomen and pelvis to determine the origin of the nonspecific renal colic.

Fig.1. Biochemical hematological analysis

Анализа	Резултат	Референтни вредности
Хематолошки статус*		
Седиментација (ESR) (mm/h)	120/140	10/20
Еритроцити (RBC) ($10^{12}/L$)	3.79	4 - 6
Хемоглобин (HGB) (g/L)	111	110 - 170
HCT (%)	33.1	37 - 54
MCV (fL)	87.3	76 - 96
MCH (pg/L)	29.3	27 - 32
MCHC (g/dL)	33.5	30 - 35
Леукоцити (WBC) ($10^9/L$)	9.0	4 - 12
Лимфоцити (LYM) (%)	39.3	25 - 55
MXD (%)	7.3	2 - 10
Неутрофили (NEUT) (%)	53.4	40 - 70
Тромбоцити (PLT) ($10^9/\mu L$)	362	140 - 400
Глуциден статус*		
Глукоза (Glucose) (mmol/L)	6.10	3.5 - 6.5
Деградициони продукти*		
Уреа (Urea) (mmol/L)	8.1	<8.3 над 65 г. <11.9
Креатинин (Creatinine) ($\mu mol/L$)	53	40 - 115
Липиден статус*		
Триглицериди (Triglycerides) (mmol/L)	2.80	< 1.9
Вкупен холестерол (Cholesterol) (mmol/L)	4.70	< 5
Ензимски статус*		
AST (U/L)	13	< 40
ALT (U/L)	19	< 41
Електролитен статус*		
Серумско железо (Fe) ** ($\mu mol/L$)	13.2	11.6 - 31.2
Забелешка:		

Prior to the laboratory examination, antibiotic therapy prescribed continuously for the cyst was discontinued to obtain the most reliable results possible, and according to them only erythrocyte sedimentation rate per unit time (SE) showed an increase, which was in favor of the patient's condition. Specific analyzes of interest have been performed, such as C-reactive protein, which is always increased in infections and various processes or inflammations in the body, and given the already diagnosed chronic diseases (diabetes), glycemia (hemoglobin) is regularly analyzed. A1C is expressed in %).^[10]

Fig.2. Laboratory finding of specific blood analyzes

Анализа	Резултат	Референтни вредности
Глуциден статус		
HbA1C (%)	6.4	4.4 - 6.6
Имунолошки тестови		
CRP (mg/L)	20	< 6
Хормонски статус		
TSH ($\mu U/mL$)	2.3	0.36 - 5.2
FT4 (ng/dL)	1.4	0.8 - 2
Имунолошки тестови		
CRP (mg/L)	23	< 6
RF (IU/mL)	0	< 0
Тумор маркери		
CEA (ng/ml)	0.0	< 5
Забелешка:		

The urinary status was also in favor of the referral diagnosis in the patient, ie the result suggests urinary tract infection with the presence of leukocytes and bacteria in the sediment, and ECHO examination of the small pelvis found no morphological degenerative changes in the bladder and ureters with the prescribed per os therapy from tab. Flexid 500 mg 1x1, before computed tomography examination.^[3,12]

Fig.3. Result of urinary sediment analysis

		УРИНАРЕН СТАТУС со седимент	
	1.	ПХ	5.0
	2.	Специфична тежина	1.010
	3.	Белковини	+
	4.	Глукоза во урина	
	5.	Кетони	
	6.	Седимент на урина	dots bacteria
	7.	Уробилиноген	retro masno defen. Je
		ГЛУЦИДЕН СТАТУС	
БА4/1	1.	Глукоза во serum (Гликемија)	(3.5-6.5)
БА4/2	2.	Глукоза толеранс тест	8-10 Je (3.5-7.8)
БА4/3	3.	Гликолизирани хемоглобин (HbA1C)	(4.4-6.6%)
		ЛИПИДЕН СТАТУС	
БА10/3	1.	Вкупен холестерол	(3.1-5.0)
БА10/2	2.	Триглицериди	(0.4-1.9)
		ДЕГРАДАЦИОНИ ПРОДУКТИ	
БА5/1	1.	Уреа во serum	(3-7.8)
БА5/3	2.	Креатинин во serum	(45-110)
		ЕНЗИМСКИ СТАТУС	
БА7/8	1.	АСТ - Аспартат аминотрансфераза	Мдо 37 Ж до 31
БА7/9	2.	АЛТ - Аланин аминотрансфераза	М до 42 Ж до 32
		ЕЛЕКТРОЛИТЕН СТАТУС - во serum	
БА8/8	1.	Железо (фер)	(10-29)
		ИВ. Тест за бременост	ст
БА16/3	1.	Тест за бременост 6-ХЦГ во урина	

After a week of laboratory tests of blood and urine, and antibiotic therapy, the patient's body temperature was normal, and CT of the abdomen and pelvis was performed at the scheduled time in a clinical hospital.^[5] The findings from the imaging, indicate the already established diagnoses, ie the existing stone in the parenchyma of the right kidney, neat and without defects in other abdominal organs, and without free fluid and pathological masses in the abdominal cavity.

3. CONCLUSION

The responsibility of conscientious medical professionals is a positive sign in the health system, for preserving and raising awareness in all involved spheres of the health.

4. PURPOSE

Taking care of the one's own health is the best model for educating the people about the public health through the personal example.

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- Webinar, by SSCC, IFCC, speakers: Plebani M, Pr.MD Univesity of Padova; *The role of serologic testing in Covid-19 diagnostics* – Jun 16, 2020 4 pm – 5 pm CEST.
- Webinar, by Stanford Club of Greece, speakers: Ioannidis J, Pr.MD Stanford University Athene: *Covid-19 high risks, high prevalence, high-level evidence, high-stake decisions* - Jun 22, 2020 6 pm – 7 pm CEST.
- Webinar, by Covid 19 & Diagnostics, speakers: Livermore Pr.MD, University of East Anglia, and Brealey MD, University college London Hospital: *Secondary bacterial infections in Covid-19 patients: is widespread antibiotic use really necessary?* - Jul 9, 2020 5 pm – 6 pm CEST.