Chronic tubulointerstitial nephritis

Chronic tubulointerstitial nephritis mainly includes chronic bacterial TIN, analgesic nephropathy and reflux nephropathy. Typical manifestations of the disease include leukocyturia and bacteriuria (in infectious cases), erythrocyturia (of non-glomerular origin), proteinuria of varying extent.

Chronic bacterial TIN

Patients usually have one of the predispositions (congenital – double pelvis, or acquired – lithiasis, prostatic hypertrophy), and have a history of repeated episodes of acute bacterial TIN with asymptomatic intervals.

Symptoms

- **urine examination**,

1. bacteriuria is usually present, if no pathogen can be cultured from the urine and leukocyturia is present, TB should be considered,
2. leukocyturia is always present,
3. nonglomerular erythrocyturia,
4. proteinuria – usually small,

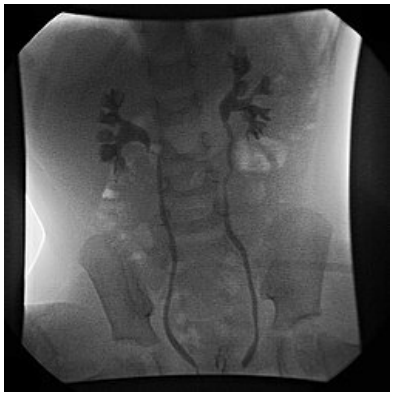
- **sonography** - typical post-inflammatory changes, not only of the kidneys (possible abscessess or their remains), but also of the excretory system.

Therapy

- **ATB therapy** in acute exacerbations (as in acute TIN, empirically, then according to culture results),
- in case of very frequent exacerbations, a preventive **night dose** of ATB is used even in asymptomatic periods.

Reflux nephropathy

It occurs in patients who suffer from vesicoureteral reflux (VUR, a congenital defect of the ureter that results in reflux of urine from the bladder into the ureter). Recurring urinary tract infections arise on this basis. It occurs most often in children, in general, the younger the recurrent urinary infections appear, the more likely it is to be due to VUR. Untreated VUR III.–IV. degrees leads to reflux nephropathy with frequent recurrences. There is a risk of focal segmental glomerulosclerosis, hypertension and ultimately renal failure.



Vesicoureteral reflux on cystourethrography

Symptoms

- history of frequent urinary tract infections or detected VUR,
- enuresis (nocturnal enuresis) in children older than 5 years,
- **urine examination**,

1. bacteriuria,
2. leukocyturia,
3. nonglomerular erythrocyturia,
4. proteinuria of the nephrotic type (more than 4 g of protein in the urine per day, a very difficult finding, especially in a child),

- **micturition cystography**,
- **scintigraphic examination**.

Therapy

- ATB therapy during exacerbations,
- **treatment of VUR (surgical)**,
- **treatment of nephrotic syndrome** (therapy of significant proteinuria, possible swelling, hypertension and dyslipidemia).

Analgesic nephropathy

Analgesic nephropathy is the result of long-term abuse of the analgesic Phenacetin (an older analgesic, used roughly 30 years ago, no longer used today). A typical patient is therefore older with a history of using Phenacetin (for example, for rheumatological diseases or other diseases characterized by pain)

Renal manifestations

- a wide range of manifestations:

1. an asymptomatic course is also possible,
2. hematuria,
3. renal colic,
4. renal failure,
5. hypertension (as a result of renal damage).

Other consequences

- increased risk of urinary tract cancer from transitional epithelium,
- other manifestations of the analgesic syndrome (psychosomatic, bone, cardiovascular, hematological and gastrointestinal disorders).

Links

Related Articles

- Vesicoureteral reflux

References

- ČEŠKA, Richard. *Intern.* 1. edition. Prague : Triton, 2010. 855 pp. pp. 546-547. ISBN 978-80-7387-423-0.
- ČERTÍKOVÁ - CHÁBOVÁ, Věra: *Tubulointerstitial nephritis*. Lecture for the 5th year of the 1st Faculty of Medicine, UK (nephrology, general medicine), 4 January 2011.