

The taking habits of over-the-counter NSAID medications among kidney failure patients

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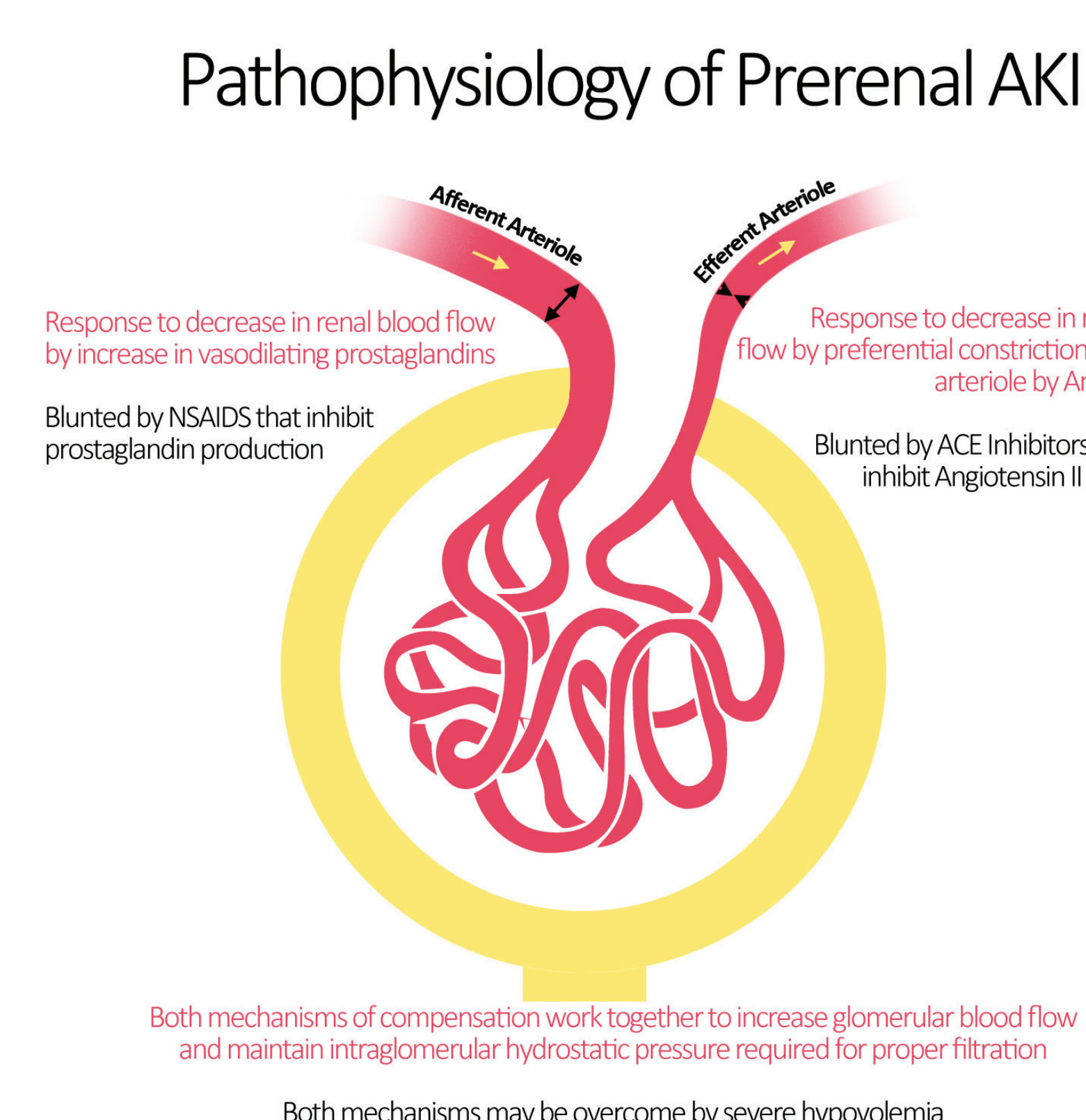
Background

Many renal failure patients suffer from chronic pain. They regularly take over-the-counter non steroid inflammatory drugs (NSAID) painkillers. The NSAIDs taken without control can lead to acute kidney injury or may worsen the outcome of the renal failure. NSAIDs can cause sodium retention, edema, hypertension and hyperkalemia in CKD patients. Moreover NSAID abuse can increase the risk of gastrointestinal hemorrhaging. NSAIDs interact with some commonly prescribed medications, including loop diuretics, angiotensin-converting enzyme (ACE) inhibitors, and angiotensin receptor blockers (ARB), leading to reduced effectiveness.

Serious possible side effects from NSAIDs use

Gastrointestinal	Dyspepsia
	Erosions
	Anemia - GI bleeding
	Ulcers
Anti platelet effects	Contributes to blood loss
Renal	Renal dysfunction
	Renal failure acute /chronic
Cardiovascular	Heart failure
	Stroke
	High blood pressure

NSAIDs block the vasodilatory effect of prostaglandins on the afferent arteriole and reduce glomerular filtration rate



Objective

We assessed the taking habits of NSAIDs among randomly selected CKD patients of our Dialysis and Nephrology Care Centre. We surveyed the types of the pain, the common causes of chronic pain, the taking habits of NSAIDs, and the patients' knowledge concerning the effects and complications of NSAIDs.

Patients and methods

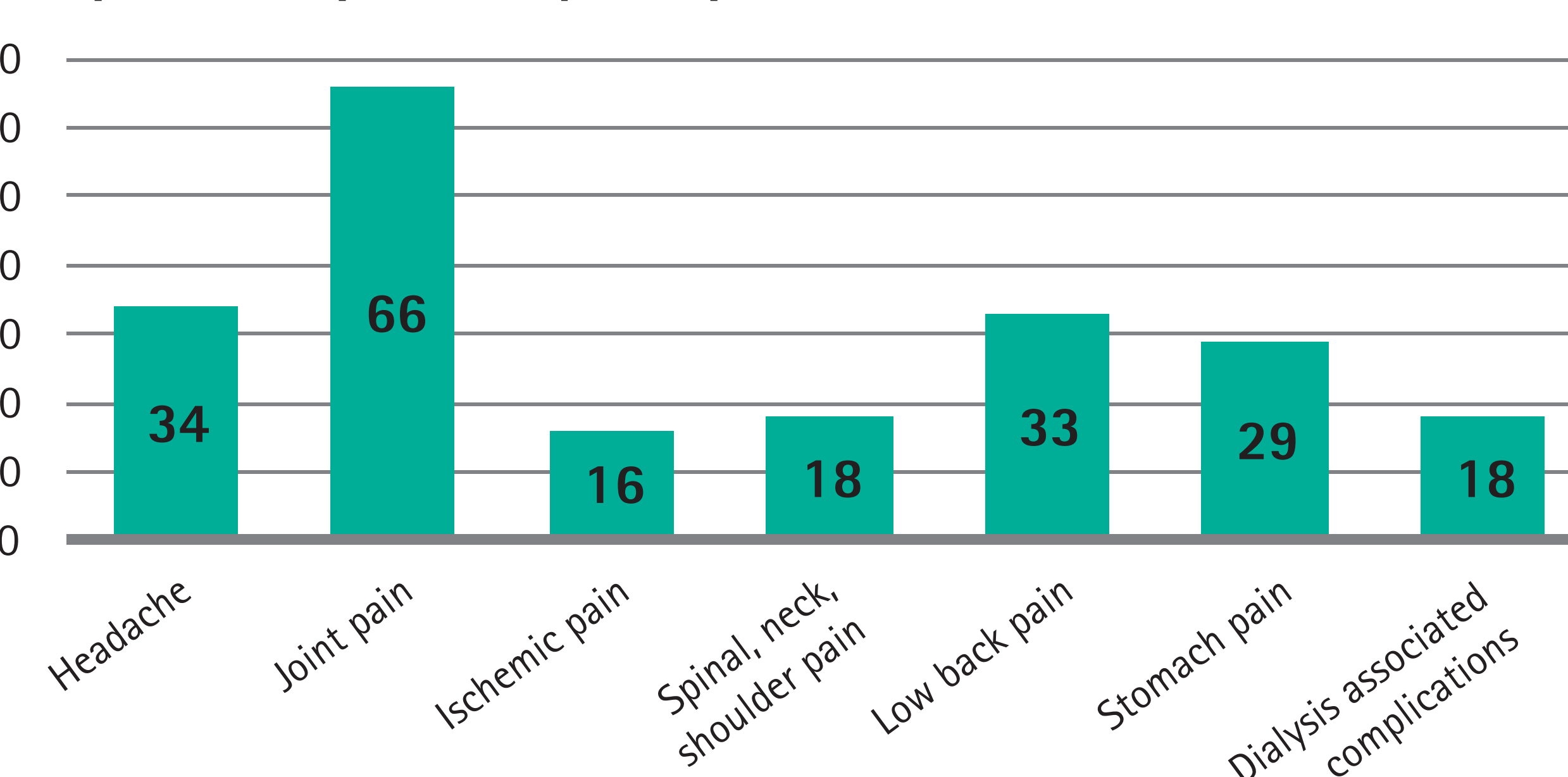
This study included 100 patients (male: female ratio was 58:42; dialysis patients:predialysis patients ratio was 50:50, average age was 67.5 years), using a questionnaire based interview.

The most frequent reasons of pain in kidney failure patients

- Peripheral neuropathy (uremia, diabetes, vasculitis)
- Mononeuropathy (carpal tunnel syndrome)
- Ischemic pain
- Chronic pain (osteomyelitis)
- Amyloidosis
- Arthritis
- Headache
- Gastrointestinal problems
- Dialysis associated complications



Complaints reported by our patients



Results

- In our study we found that 78% of surveyed patients suffer from chronic pain
- Causes of pain were various, 32% of patients had more than a single cause of their pain, joint and musculoskeletal pain was most common
- 98% our patients used over-the-counter NSAID drugs at least ones time within a year
- 42% of our patients regularly used NSAID medication to ease chronic pain on a daily basis within the last three months (daily users)
- 78% (78/100) of the surveyed patients, and 88% (37/42) of the daily users take these medications without a prescription or consulting with a nephrologist
- 19% (8/42) of daily users simultaneously take a pill and apply local ointment
- 83% (35) of the daily users are dialysis patients
- 73.5% of a daily users are older than 65 years
- 29 patients from daily users take diuretics medication, 35 patients use ACE and ARBs, and 18 patients use platelet aggregation inhibitor drugs



Conclusions, application to practice

- The majority of the patients do not consider over-the-counter NSAIDs as "real drugs", they are generally unaware of the side effects and do not consult a nephrologist or a GP before use
- Nephrology nurses may have a significant role in investigating the application habits of the NSAIDs among CKD patients
- It is important to identify the risk groups whose remaining renal functions may be severely affected by NSAID medication, or in whom these drugs may cause other complications
- In cases of some unexplained complications (hemorrhage, edema, hyperkalemia, reduced diuresis) we must consider the uncontrolled application of NSAIDs
- It is necessary to educate the CKD patients about the safe usage of NSAID drugs
- It is essential to raise awareness about how the same agent of the different types of medications such as pill, ointment, and syrup can cumulate and cause other severe side effects

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