Sheet no. 18

By dr.Zaid

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It’s important to know that u will not eliminate the pain ,rather u should manage it by not only giving a prescription, but also by talking to the patient cuz this is part of the management. In dentistry, pain is associated with extraction cuz usually it’s a sever type of pain. U should know that a dental pain is usually inflammatory. When u’re planning for a surgery, its very important to speak to the patient before about what type of pain the should expect and how to manage it. Also u should know that pain control is effective if u start analgesia before the pain starts. In dentistry, if u classify pain into mild, moderate or sever (pulpitis-abscess) , most of the time it will be mild to moderate (ex, periosurgery – extraction – alveoloplasty – biopsy). Pain peak is reached after 12 hours and inflammation becomes at its maximum, this peak in not reached after extraction or LA removal, its reached several hours later. Yet, its extremely important to realize that if u ale a surgical procedure to a patient then he comes 2 to 3 days later with extreme pain, this means that there is something else like dry socket or an infection. When u want to prescribe a medicine it has to be effective, safe and cheap.

Panadol and ibuprofen constitute the majority of any over counter prescription (meaning that u can buy them without a prescription). In some countries, what u buy it in over counter dosage is different from what u buy it with a prescription. Ex, u can by ibuprofen in Jordan in dosage of 400mg or 600mg , but in UK, USA & Europe the over counter dosage is just 200mg, but if u have a prescription then u could have a 600 mg.

***Acetaminophen (Panadol)***

It’s the safest and most widely used analgesia

Its called Tylenol in USA & paracetamol or Panadol by the Engleez

The way it actually works is still not known, but it has a central component of action

Its an analgesic but not an anti-inflammatory

Indications: headache, fever, etc.

***Dosage;***

For a healthy adult, the maximum dose is 4 g/24hours (in separate doses) . If u want it to be effective u can give the patient 1g/6 hours.

To ease on the patient u can give him 3g/24hours so this will be 1g/8hours.

Panadol comes with different formulas, it can bind with other medicine as antihistamine , codeine , so u can give it to the patient in a combined tablet or u combine 2drugs with yourself.

Panadol is safe, but metabolism occur in liver, so if the patient has a liver disease, u have to cut down the dose.

***Notes***

* Patients who take warfarin shouldn’t take NSAIDs and ibuprofen cuz this works on increasing bleeding.
* If u give Panadol to someone who takes warfarin, u should cut down the dose cuz it has been discovered that Panadol interacts with warfarin, so if the patient is on warfarin, probably u may need to give a maximum dose of 2g of Panadol only, or if u decide to give it at a higher dose , u should monitor the INR for the patient cuz it may raise and the patient becomes at a higher risk for bleeding. Yet still, Panadol is the safest analgesic that we can prescribe but the only precaution is for a patient having a liver disease.

***NSAIDs***

(aspirin – ibuprofen – diclofenac – methonoic acid)

***Aspirin***

Its an anti-inflammatory drug, but its analgesic role in not clear.

Mechanism of action

NSAIDs are usually non selective

There is cox1 and Cox2, one if them works on the protective mechanism of the GI and the other one is anti-inflammatory.

Cox1 enzyme….. presents in the entire body, its role mostly is protective and regulating platelet action for kidney function.

Cox2…… is related to inflammation and the production of inflammatory byproducts.

NSAIDs in general stops both cycles, hence, if u take ibuprofen or aspirin, u will stop the enzyme that produces the enzyme that protect the GI and that protect the kidney which impairs its function, so ten GI and kidney became more prone, leading to impair thier actions and more bleeding is likely. Also u impair Cox cycle that produces the cytokines which increase the inflammatory process. Therefore, when u prescribe an NSAID that acts on both cycles (nonspecific), u should be aware that this patient doesn’t take any other antiplatelet drugs or warfarin cuz by that u impair coagulation and platelet function. U shouldn’t prescribe it to patients with active gastric disease or peptic ulcers, and be cautious with patients in renal failure.

***Ibuprofen***

Advil (USA), ibuprofen (Engleez)

The maximum dose for a healthy adult is 2.4g (2400mg)/ day (in separate doses), meaning that u can prescribe up to 600/6hours (in cases of significant pain and that’s not applied to us as a dentist, we shouldn’t prescribe this dose), yet, u are safe if u prescribe 400mg/8hours .

Precautions…

-don’t prescribe it longer than 5 days never ever.

-u have to be cautious when prescribing a drug for patients above 60 years old cuz they are more prone to GI bleeding

-those who are alcoholic, cuz their liver is impaired.

-who takes blood plugs

-during the last month of pregnancy

-before and after surgery

-people who are allergic to aspirin

Ibuprofen is the most commonly used NSAID cuz its safe, effective & cheap. In dentistry it’s the drug of choice cuz its Anti-inflammatory and superior to Panadol. If u are expecting a moderate pain, the best combination is to take Panadol and ibuprofen together.

* **NAPROXEN :**

Naproxen is another commonly used anti-inflammatory , **over the counter drug** , used as ibuprofen , it’s dose differ according to manufacturing company , but usually it’s given as 275 mg or here in Jordan its 250 mg every 6 to 8 hours .Its more expensive but not more effective than ibuprofen .

* So , ALWAYS our first choice is Ibuprofen . regarding the rest of drugs , its your choice if you want to use them but the doctor recommends Ibuprofen.
* **VOLTAREN :**

You can give 50 mg every 3 days as **injection.**

* **SELECTIVE COX2 inhibitors :**

By using selective cox2 inhibitor we can overcome the problems from selective cox1 inhibitor on kidney and GI , but its risk on cardiovascular system still existed .

* We have 3 known drugs of this group : viox , valdecoxib and celebrex .

The first 2 drugs aren’t used these days due to reported cases of death , but **CELEBREX** is used nowadays . its not as good as ibuprofen , but since we cant give ibuprofen in patients who have peptic ulcer , we use celebrex .

You can take 1 dose a day in case of moderate to severe pain , recommended dose is 200 mg every 12 hours .

Again there is no evidence that its better than ibuprofen. And its more expensive.

Used for patients with GI complications as we mentioned but prescribe it as limited dose and for a short time .

* A very important note the doctor mentioned regarding the doses , if a patient came to you , don’t prescribe the maximum dose , try to prescribe the lowest effective dose for the shortest time .
* **NARCOTICS ( OPIOIDS ) :**

Whenever you think about drug addiction, you should have the narcotics drugs cross your mind ; because narcotics are extremely effective **in reducing any pain**.

oral narcotics usually used in patients who have **medium to high levels of pain** , BUT you should think thousands of times before prescribing them .

Narcotics are huge family consists of Codeine , Oxycodone & Morphine … etc.

The problem with these drugs is that they **have physiological tolerance and dependence**.

Narcotics are **CENTRALLY acting** “ acts on cerebral cortex “ drugs and if you had to prescribe them ; you **never prescribe them for more than 3 days.**

They are called **controlled drugs** ; which means that they are under the supervision of government . “ el 7okoomeh betkoon 3addeh kol sydleyeh kam 7abeh feeha w lazem yen3ata el dawa lal mareed bs be wasfeh w Kaman bemorro 3al sydleyat yt2kdo kam 7abbeh enba3at w heek l2enno el modmeneen betloboohom bdal mo5drat “ .

**Over Dose from narcotics could lead to DEATH** .

* **TRAMADOL ( TRAMAL ) :**

Its an **atypical opioid** , if you are expecting **moderate pain** we can give it as tramal plus panadol but yet we have to be carefull when prescribing them, its not controlled as other opioids , not addictive that’s why its Atypical ☺

 its given as 50 to 100 mg orally every 4 to 6 hours “ its also called tablets of 50 “

the doctor said that we don’t fear the risk of tramal itself but we are afraid from combining it to something else.

* Keep in your mind that your options is to give : single ibuprofen dose , panadol , celebrex , revanine + codeine “ revacode “ .
* As a general dentist you have to know the following :
* Again and again the **most effective analgesic is ibuprofen ; because its anti-inflammatory.**
* If it was mild to moderate pain you can give panadol besides it , for example after multiple extractions we face moderate pain .
* Always make it clear to the patient that they will feel pain & its normal .
* You should tell the patient that these analgesics are more effective if they were taken before the dental procedure.
* Remember that you shouldn’t prescribe drugs for a duration more than 3 days. Patient should take the drug regularly for 3 days , and if needed for 5 times but he should tell you before that.

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 The key to success is

 Hard work and determination ♥