HOW OUR FAMILY DOCTORS MANAGE CHRONIC INSOMNIA? ANALYSING BIG DATA TO IMPROVE THEIR CLINICAL PRACTICE

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Introduction:

Insomnia is the most prevalent medical pathology in adulthood and is currently considered a public health problem, being necessary to study precisely its diagnostic-therapeutic approach

Materials and methods:

Retrospective observational study about insomnia patients diagnosed and treated by primary care in our area (Department of Health of Sagunt, Valencia, Spain), between 2008 and 2018 (more than 100000 patients, collected random and anonymously from our two largest regional healthcare network databases), in order to analyse big data about epidemiology, and comorbidity, as well as which are the primary care strategies for chronic insomnia diagnosis, management and treatment.

Results:

Comparative between our data and another similar samples published[A] show higher prevalence and incidence, increased comorbidity and number of consultations and much more psychoactive drugs overprescription.

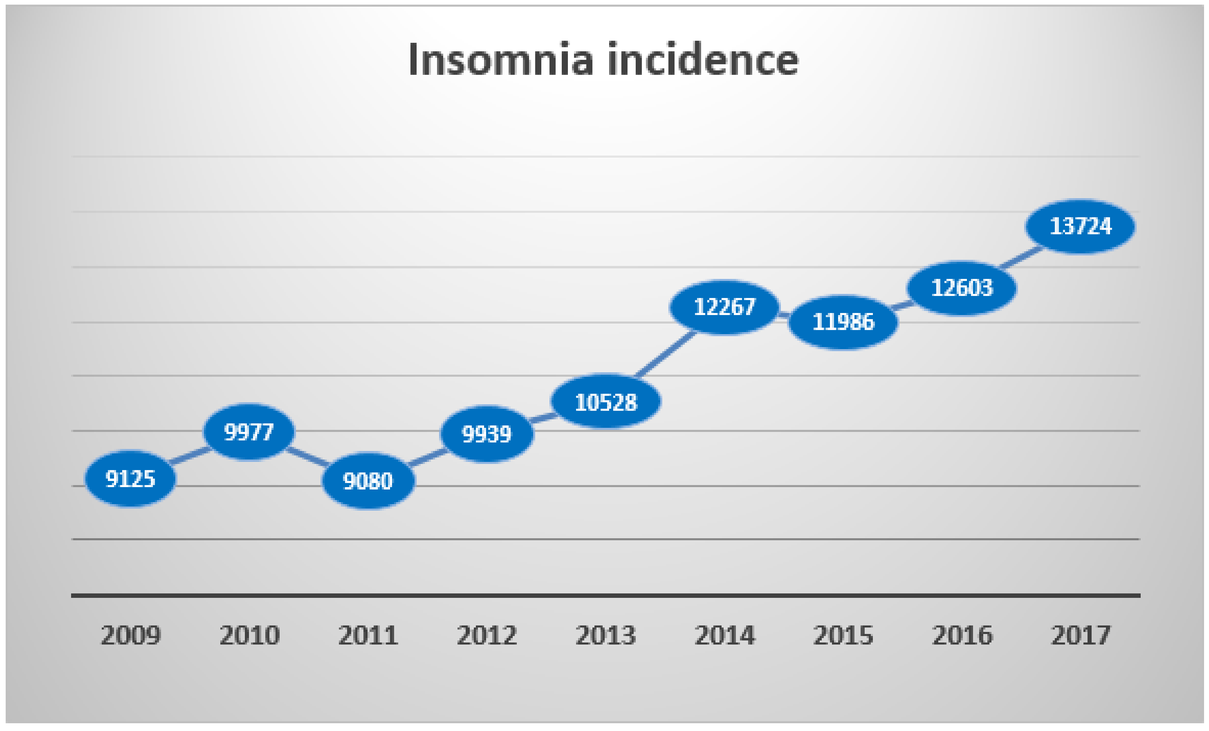
We underline specially lorazepam, first of our insomnia used pills (T1), which reperesents the 32% of all the prescripted psychoactive drugs (T2), progressive increase on insomnia incidence, during the last 9 years, until around 10%. now (F1) and the most freqüent comorbidity before and after insomnia diagnostic, related to sleep disorders, that is sleep pattern impairement (before) and Willis-Ekbom syndrome (after).

Besides, there is too much variability in diagnostic, asessement[B], procedures and treatment criteria: there are more registered psychoactive treatments than consultations (54,2% of cases), 32% of patients don't receive a treatment after first consultation with insomnia or they received treatment without a registered treatments than consultations (F2) and 39% receive a psychoactive drug without therapeutic indication (F3)

Conclusions

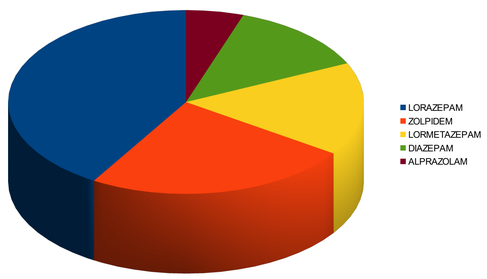
According to our results, in our sample, chronic insomnia is the most important treated health problem and there are too many failures, pitfalls and obstacles in his primary care management so it is urgent to solve the significant lack of resources and effectiveness in primary care chronic insomnia management in our environment, as soon as possible

Number of cases of insomnia per year betwwen 2009-2017 (F1)

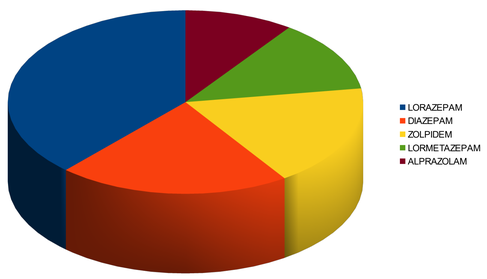


Drugs prescripted for insomnia (T1) & other health disorders (T2)

T1	Drugs	Patients	%
1	LORAZEPAM	4468	36,02
2	ZOLPIDEM	2617	21,10
3	LORMETAZEPAM	1769	14,26
4	DIAZEPAM	1388	11,19
5	ALPRAZOLAM	565	4,55
	Total	12404	87,12



T2	Drugs	Patients	%
1	LORAZEPAM	4779	32,02
2	DIAZEPAM	2646	17,73
3	ZOLPIDEM	2246	15,05
4	LORMETAZEPAM	1587	10,63
5	ALPRAZOLAM	1239	8,30
	Total	14923	83,74



Consultations vs treatments (F2) & Therapeutical indication (F3)

Without treatment	7082	32,18
Consultations > Treatments	2997	13,61
Consultations < Treatments	11926	54,19

Drugs for insomnia	13239	60,16
Drugs for other pathology	8766	39,83

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Evaluation of APAP parameters in one to three nights titration for final pressure decision-making in a real world clinical setting

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Introduction / Objectives

AutoCPAP (APAP) is becoming the standard definitive sleep apnea (OSA) evaluation and treatment[1]. The aim of this study was to compare pressure values obtained from previous APAP titration with the final pressure (Pf) selected by the clinician after a complete follow-up in compliant OSA patients.

Methods

We performed a retrospective descriptive study in 114 consecutive OSA patients diagnosed by home-sleep testing (HST), and treated with CPAP attended in the Pneumology Unit in Sagunto University Hospital, Valencia (Spain). After a minimum 3 months adaptation period with empiric CPAP pressure, patients underwent 2-3 nights with 2 different APAP devices. We obtained pressure values in terms of percentile 95 (P95) and median (Pm) from every night. Device 1 (*Breas™: iSleep 20i)* was used 4 times during 2 nights and 26 times during 3 nights. Device 2 (*Resmed™ :AutoSet S9)* was used 12 times during 2 nights and 18 times during 3 nights. Then, 3 months aprox. after the APAP study, clinicians decided a pressure (Pa) taking in account APAP values and visual analysis, until the 3 months follow-up consultation when, according to clinical outcomes, a new assessment established Pf.

We selected 60 patients (30 for each device) meeting the inclusion criteria: minimum of 2 valid APAP nights with no compliance problems and without significant leaks, stable optimal Pf (1 year without changes or health care needed) and use of CPAP > 4 hours/day for at least 3 consecutive months. Data analysis was blind and random, by an experienced and independent sleep physician. Our purpose is check how and why the clinicians used the APAP, whose parameters were statistically evaluated ***(fig.A,B***), measuring automatic pressure values from each device for every patient (***fig. C1,C2***) and different combinations of nights, comparing all parameters with Pf, whose correlation with AHI was also analyzed.

Results

In order to predict Pf, we found significant evidence (p<0,05) using Pm (***fig. D1)*** and device 2 (*Resmed)* in comparison with P95 and device 1, respectively. Besides, there are no statistical difference (p>0,05) performing more than one APAP night, but diagnostic AHI shows statistical significance (p<0.05, ***fig.D2***) as a compliance predictive value[3].

Conclusions

Our results suggest that clinicians mostly prescribed a 3-nights APAP study and consider partially its values in their decision-making, but just one APAP night, Pm and Resmed[2] device are better APAP titration strategies.

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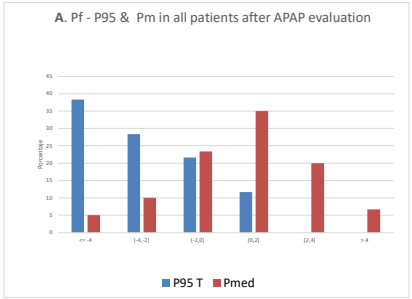

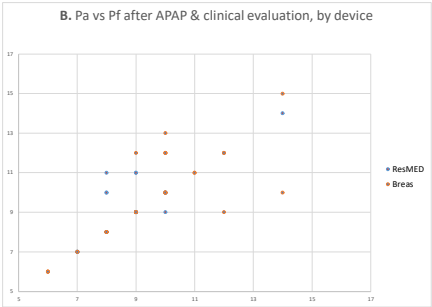

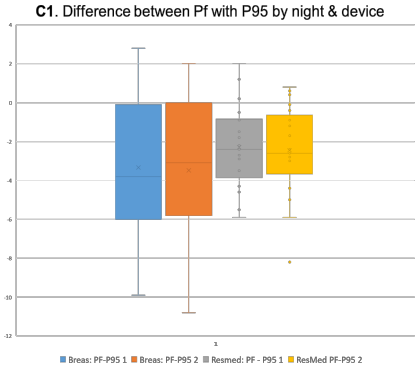

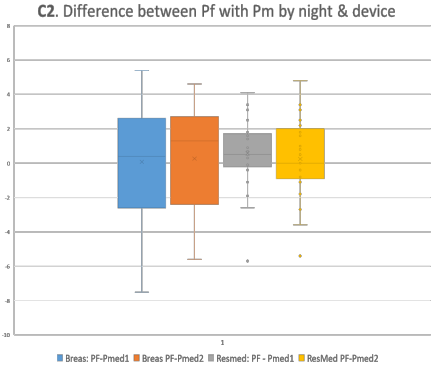

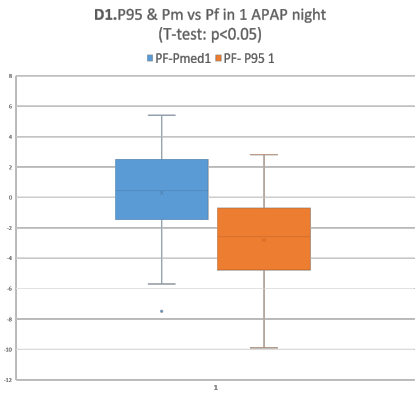

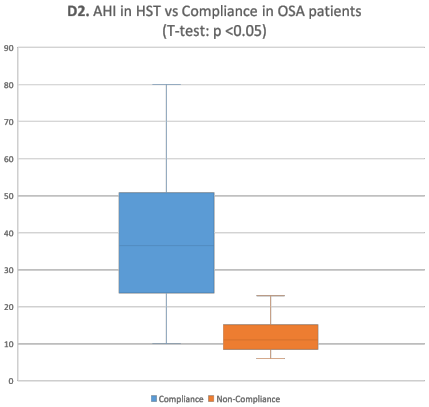

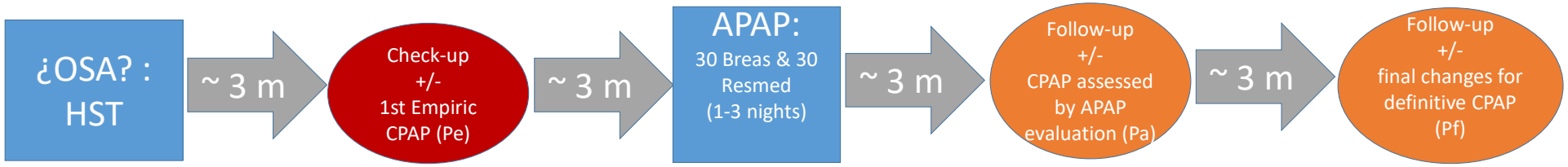

REVISIÓN Y ALTERNATIVAS TERAPEUTICAS EN EL TRASTORNO DE CONDUCTA EN SUEÑO REM

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INTRODUCCIÓN

El trastorno de conducta en sueño REM (TCSR) es una parasomnia consistente en episodios de vocalización y/o conductas complejas motoras durante el sueño REM, con presencia de REM sin atonía. El tratamiento de elección es el clonacepam, que puede originar efectos secundarios especialmente en edades avanzadas, por lo que se ha ensayado el uso de otros fármacos moduladores del sueño.

OBJETIVOS

1. Análisis clínico-evolutivo de pacientes con TCSR de nuestra Unidad
2. Valoración de diferentes alternativas farmacológicas.

MÉTODO

Estudio retrospectivo de 19 pacientes afectos de TCSR, diagnosticados por clínica y video-polisomnografía, tratados farmacológicamente y seguidos los últimos 21 años en nuestro servicio (año 1994-2015).

Se analizan las siguientes variables: antecedentes, género, patologías asociadas, tipo de fármaco, dosis, pescalas de gravedad previa y post-tratamiento del TCSR (*EG*, según frecuencia e intensidad de episodio: de 0 a 4) y escala calidad subjetiva de sueño (*CS*: de 0 a 4).

RESULTADOS

Género:(16 varones/3 mujeres).

Edad de inicio: media 64.7 años (44-76).

Tiempo de evolución del inicio de la clínica hasta diagnóstico: media 4.8 años (1-15).

Tiempo total de evolución del TCSR: media 10.5 años (2-23).

Morbilidad neurológica: E. Parkinson: 4 pacientes, deterioro o demencia: 4 pacientes (1 de ellos fallecido).

Antecedentes de interés: hiposmia/anosmia previa: 3, trastornos psiquiátricos: 9, SPI-EWE: 3 y narcolepsia: 1.

Hallazgos en vídeo-polisomnografía: REM sin atonía en todos ellos (registro de algún fenómeno en REM en 18), SAHS en 11, mioclonus nocturno en 11.

Tratamiento:

Gabapentina dosis 300-800mg (media 600 mg): 11 pacientes (57.9%), Eficacia en 8, tolerancia en 1, incumplimiento en 1 y alergia cutánea en 1. EG: 3.8/1.5. CS: 1.4/3.1.

Clonazepam (0,5-1 mg): 9 pacientes (47.4%). Eficacia en 4 (2 con medicación antiparkinsoniana asociada) y tolerancia en 5. EG: 4/2, CS: 1.3/3.

Pregabalina (75-150 mg): 4 pacientes. Eficacia en 2 (EG: 3.7/2, CS: 1.7/3), tolerancia en 1 e incumplimiento en 1.

Melatonina (2mg): 1 paciente (EG: 4/3, CS: 0/4).

Lorazepam (1mg): 1 paciente(EG: 3/1, CS: 1/4).

Lormetazepam (2mg): 1 paciente(EG: 3/1, CS: 1/4).

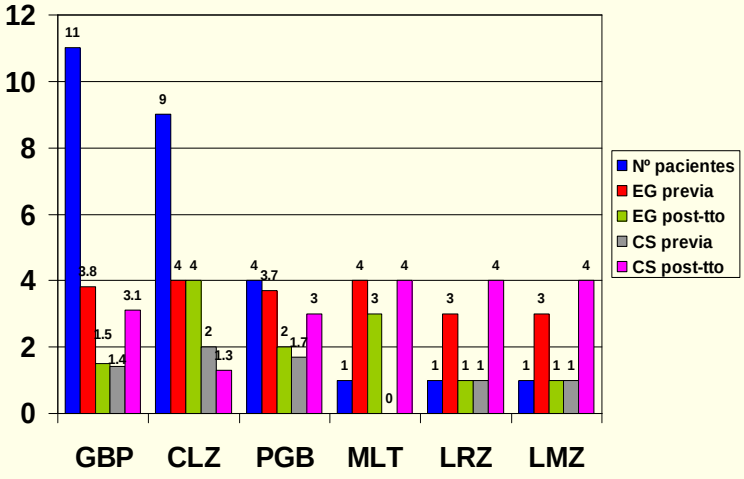

Figura 1. Escalas de gravedad del TCSR (EG) y calidad de sueño (CS), antes y después de [illegible]

EG (0-4): 0 = perfecto, 1 = escasa agitación / onirismo, 2 = leve agitación/onirismo, 3: moderada agitación/onirismo, 4 = severa agitación/onirismo y/o caídas y/o agresiones

CS (0-4): 0 = muy mala, 1 = mala, 2 = regular, 3 = buena, 4 = muy buena

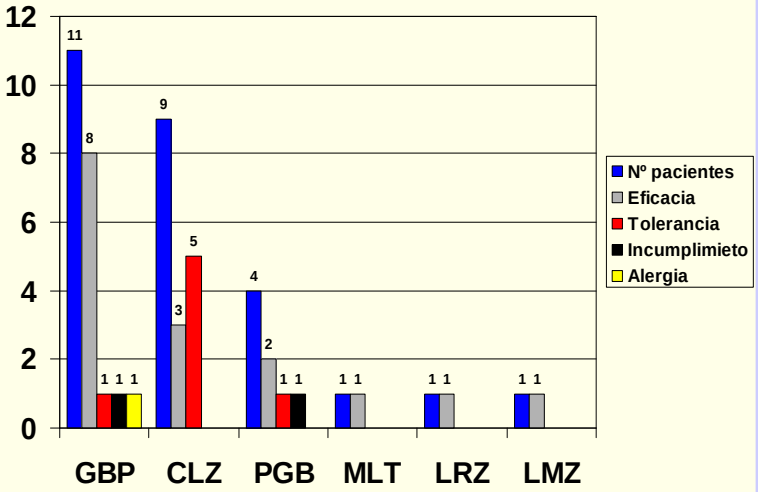

Figura 2. Frecuencias absolutas de eficacia, tolerancia, incumplimiento y reacciones adversas/alergias

CONCLUSIONES

En nuestra experiencia la gabapentina, pregabalina, melatonina, lorazepam y lormetacepam se han mostrado como una buena alternativa al clonacepam en el tratamiento con trastorno del la conducta en sueño REM.

Otros fármacos podrían ser útiles pero se requieren más estudios.

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KEYS TO IMPROVE HEALTHCARE ASSISTANCE IN SLEEP MEDICINE: CLINICAL CASES WITH COMPARATIVE BETWEEN TRADITIONAL AND MODERN METHODOLOGY

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Introduction:

The management of sleep disorders has improved significantly in the last 10 years, thanks to a better knowledge and the great technological innovation applied to sleep medicine[2], but there are few studies that show it with clear scientific evidence.

Materials and methods:

Among more than 100,000 patients selected from 2009 to 2019, we have made a selection of those with different sleep disorders, traditionally treated in the public health system (primary and specialized care in public centers of the Valencian Community: [PCV]) and in a modern way in our centers (specialized private care at the Institute of Sleep Medicine, in Valencia [IMS]), to analyze and compare different parameters of care quality and cost-efficiency of procedures. We present 5 clinical cases and their management protocols[1] for insomnia, sleep apnea, hypersomnia, parasomnia and Willis-Ekbom disease, with a detailed comparative analysis between both methodologies.

Results

In our sample, all these parameters analyzed improve significantly with the approach of these patients according to the IMS method (based on gold-standard procedures[1,2], highlighting the waiting time to have a first consultation and a definitive diagnosis, the interval between diagnosis and treatment, the number and type of consultations (face-to-face traditionals [T] or by distance) and tests needed and done, the number and type of treatments used, the time interval between the first consultation and the discharge, and the degree of satisfaction 1 month after this discharge.

In addition, the effectiveness, efficiency and cost of the process are much better in IMS and patients highlight the technological resources through our website (www.dormirbien.info), home sleep tests, electronic sleep diary and consultations by e-mail [@] , phone [P] and videoconference [V].

Conclusions:

Use of new technologies applied to sleep medicine brings great benefits to doctors and patients. Development of new methods to improve the quality of care and solve sleep disorders optimally has to be spread and standardized uniformly throughout the world, requiring more similar studies to prove it, more medical and technical knowledge, more research and better interaction and collaboration between public and private health systems.

SLEEP APNEA	PCV	IMS
Wait time	91 days	24h
Diagnostic / after	SAHS / 3 months	Postural SRVAS / 3 days
1st/ last treatment	CPAP 7 mmHg/APAP 6-10	Somnibel+Diet
Consultations	4T x 1 year	2V x 10 days
Test/Others	Hospital oximetry	Video-HomePSG with Somnibel

INSOMNIA	PCV	IMS
Wait time	61 days	8h
Diagnostic / after	Chronic insomnia / 7 days	Mismatch perception / 7 days
1st / last treatment	Zolpidem 10 mg /Loracepam 1 mg	Sleep hygiene + CBT
Consultations	10T x 6 months, 4 treatment changes	3V+2P x 2 months, no changes
Test/Others	Hospital PSG	Actigraphy+electronic sleep diary

HYPERSOMNIA	PCV	IMS
Wait time	123 days	12h
Diagnostic / after	Major depression / 1 month	Narcolepsy / 5 days
1st/ last treatment	Paroxetina 20 mg	Modafinil 200 mg
Consultations	8T x 1,5 years	2P x 15 days
Test/Others	No sleep test	Video-HomePSG+MLT

PARASOMNIA	PCV	IMS
Wait time	75 days	36h
Diagnostic / after	Sleep walking / 20 days	REM behavior disorder / 7 days
1st/ last treatment	Clonacepam 0,5 mg	Melatonin 2 mg
Consultations	6T x 2 years	1V+1P+1@ x 1 month
Test/Others	No sleep test	Video-HomePSG

Others	PCV	IMS
Wait time	156 days	20h
Diagnostic / after	Polineuropathy / 3 months	Willis-Ekbom disease / 1 day
1st/ last treatment	B12/Gabapentin	Iron+tyroid hormone
Consultations	6T x 2,5 years	3P x 21 days
Test/Others	EMG	Video-HomePSG+actigraphy+electronic sleep diary

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