



Adverse Drug Events and Risk Factors Associated With Oral Opioids Therapy of Elderly Patients

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OBJECTIVES

The elderly are very different from normal adults in terms of physiological, pharmacokinetic, pharmacological way. In particular, the pharmacological function of adverse events of the drug due to inhibition of receptor reactivity decreases and homeostasis reaction appears better than can appear. The aim of this study was to evaluate the side events and associated risk factor to the elderly when taking oral opoids.

METHODS

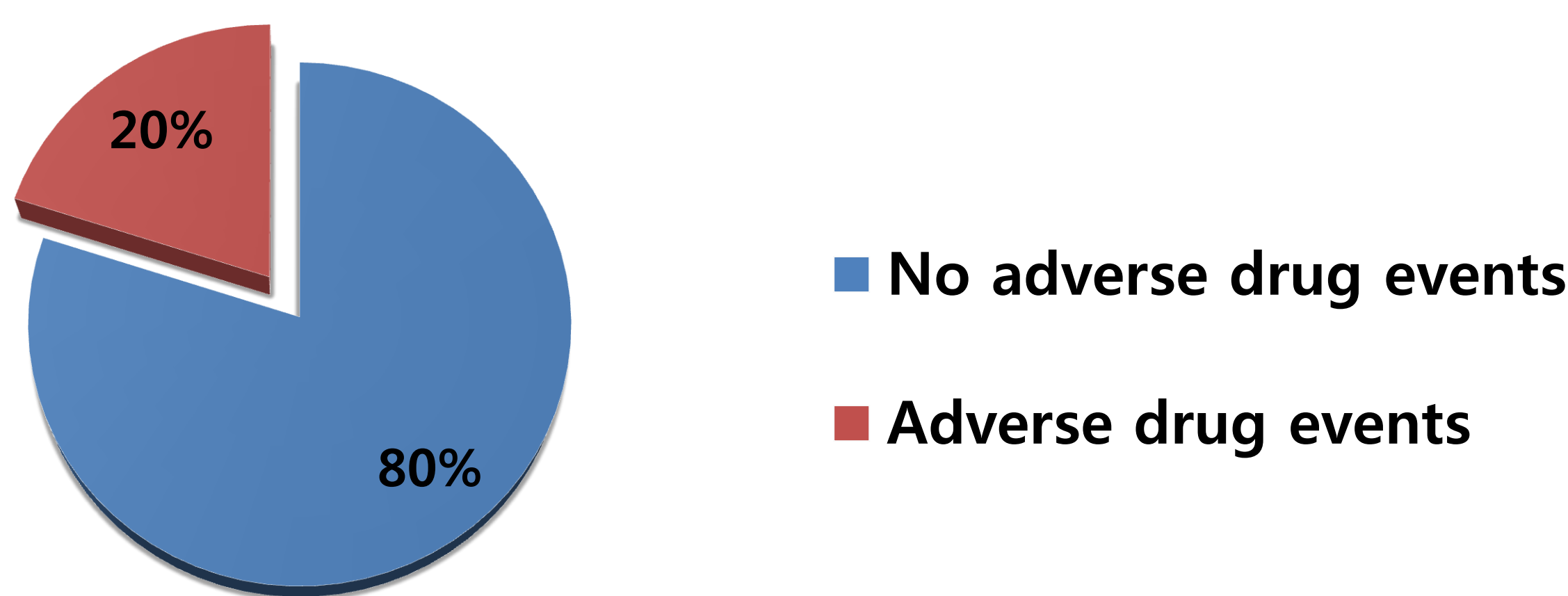
In the VHS Medical Center from January 2012 to December 2012, Adults over 65 years old male patient is examined by selecting three kinds of drug(Codeine phosphate, Morphine sulfate, Oxycodone HCl) among patients prescribed an oral narcotic analgesics. The basic information of patients was collected for further details: underlying diseases, previous experience, taking drugs, period and daily prescription. It was investigated for side effects in patients.

RESULTS

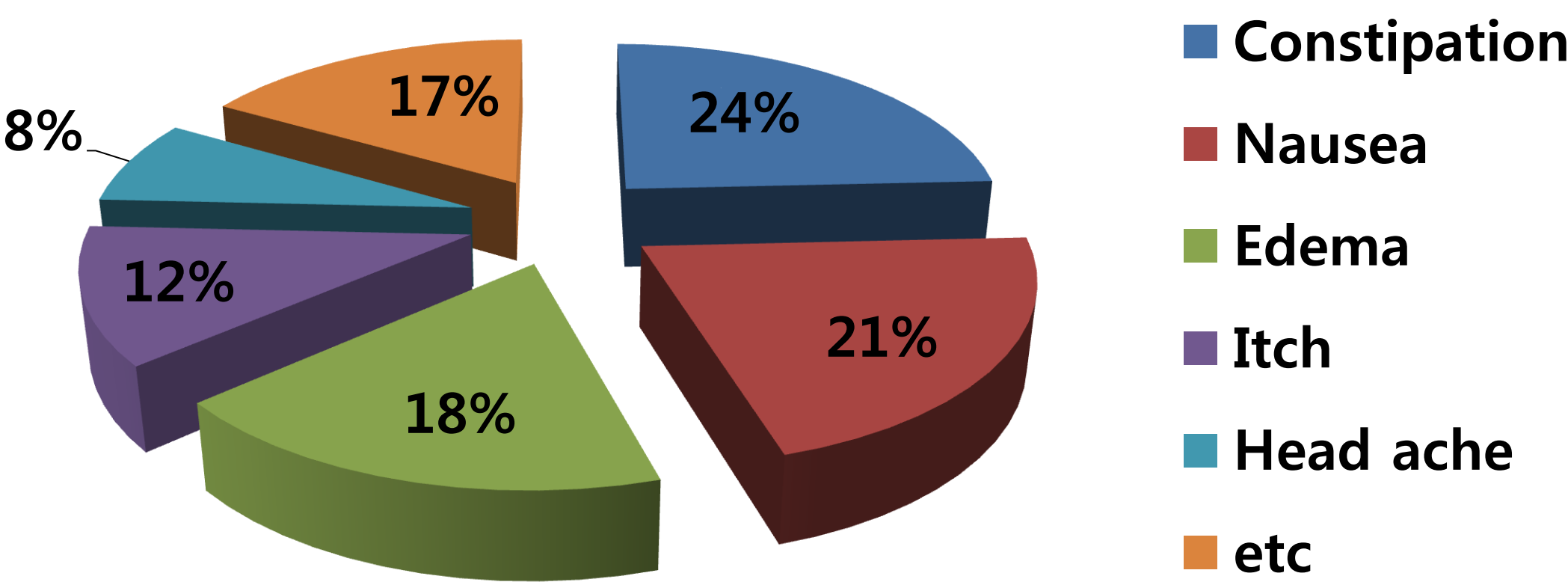
Result 1) Baseline characteristics (n=329)

Variables	Number (%)
Age (mean ± S.D.)	73.2 ± 5.69 years (range 67-91 years)
Gender (Male)	329(100%)
Body mass index (BMI)	
≥25kg/m2	99(30.1%)
<25kg/m2	169(51.4%)
Comorbidity	
Cardiovascular & Cerebrovascular disease	175(53.2%)
Cancer	50(15.2%)
Respiratory disease	33(10.0%)
Endocrine disease	23(7.0%)
Kidney & Urinary disease	19(5.8%)
None	16(4.9%)
Others	13(3.9%)
Prior opioids experience	
≥1	268(81.5%)
None	61(18.5%)
Duration of therapy	
short(<12wks)	272(82.7%)
long(≥12wks)	57(17.3%)

Result 2) Adverse events prescribed an oral narcotic analgesics



Result 3) The types of adverse drug events



Result 4) Comparison of clinical characteristics between patients with and without adverse drug events (multivariate)

Variables		OR	95% CI		p-value
			lower	upper	
Age	≥80	1.84	0.76	4.47	0.18
	<80	1			
Weight		1.05	0.98	1.13	0.21
BMI		0.98	0.79	1.23	0.89
Comorbidity	Cardiovascular & Cerebrovascular disease	0.33	0.06	1.71	0.19
	Cancer	0.06	0.01	0.51	0.01
	Respiratory disease	0.13	0.15	1.17	0.07
	Endocrine disease	0.89	0.13	5.98	0.90
	Kidney & Urinary disease	1.64	0.23	11.69	0.62
	No	1.00	.	.	.
Prior opioids experience	≥1	14.78	1.90	114.76	0.01
	None	1	.	.	.

Result 5) Factors affecting adverse events: overall and gastrointestinal adverse events(multivariate)

Variables		OR	95% CI		p-value
			lower	upper	
Age	≥80	2.37	0.82	6.87	0.11
	<80	1			
Weight		1.04	1.00	1.09	0.04
Comorbidity	Cardiovascular & Cerebrovascular disease	0.29	0.05	1.70	0.17
	Cancer	0.06	0.00	0.76	0.03
	Endocrine disease	1.18	0.15	9.15	0.88
	Kidney & Urinary disease	1.53	0.19	12.69	0.69
	No	1	.	.	.
Duration of therapy	short(<12wks)	1	.	.	.
	long(≥12wks)	0.65	0.47	3.47	0.65

DISCUSSION & CONCLUSIONS

Previous experience of drugs in elderly patients is considered to be used as a prognostic factor that can predict the adverse events and gastrointestinal adverse events in performing oral opioid therapy.

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