

노인에서의 수면 호흡 장애

Sleep-Related Breathing Disorders in the Elderly

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ABSTRACT

In 2000, the number of people aged 65 and over increased to 3.37 million, accounting for 7.1% of the total population of South Korea. The elderly population will increase up to 19.3% in 2030. Sleep disordered breathing (SDB) seems to increase with age. More than 50 - 60% of old people complain of SDB - related signs and symptoms including awakening headache, excessive daytime sleepiness, fatigue, cognitive dysfunction, memory loss, personality changes, and depression. The influence of a mild degree of SDB upon the elderly is unclear, but moderate to severe SDB is well known to be associated with many diseases including hypertension, arrhythmia, myocardial infarction, stroke, dementia, and sudden death. Therefore, physicians should pay attention to elderly patients who complain of SDB related symptoms and signs that may not be normal signs of aging. Physicians need to become more sensitive to treat SDB in the elderly. *Sleep Medicine and Psychophysiology* 2001 ; 8(1) : 11-17

Key words: Sleep disordered breathing · Snoring · Sleep apnea · Upper airway resistance syndrome · Elderly.

서 론

노인에서 수면 호흡 장애는 65세 이상의 인구가 증가함에 따라 2000년 3,370만 명으로 총 인구의 7.1%를 차지했으며, 2030년에는 19.3%로 증가할 것으로 예상된다. 수면 관련 호흡 장애(SDB)는 나이가 들수록 증가하는 것으로 보인다. 50-60%의 노인들은 수면 관련 호흡 장애와 관련된 증상과 징후를 호소하며, 이는 깨어있는 두통, 과도한 주간 졸음, 피로, 인지 기능 장애, 기억 상실, 성격 변화, 그리고 우울증을 포함한다. 수면 관련 호흡 장애의 경미한 정도가 노인에게 미치는 영향은 불명확하지만, 중도에서 중증의 수면 관련 호흡 장애는 고혈압, 부정맥, 심근경색, 뇌졸중, 치매, 그리고 갑작스러운 사망과 밀접하게 연관되어 있다. 따라서, 의사는 노인 환자에게 수면 관련 호흡 장애와 관련된 증상과 징후를 호소하는 경우, 이는 노화의 정상적인 징후가 아닐 수 있음을 주의 깊게 관찰해야 한다. 의사는 노인에서 수면 관련 호흡 장애를 치료하는 데에 더욱 민감해져야 한다. *Sleep Medicine and Psychophysiology* 2001 ; 8(1) : 11-17

키워드: 수면 관련 호흡 장애 · 코골이 · 수면 무호흡 · 상부 호흡기 저항 증후군 · 노인.

본 론

1. 코골이(Snoring)

1) 유병률

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가 (subjective perception) (, bed 3) 원 인

partener), strength endurance 가

San Marino 5,713 16.8%, 14.1% 가 (1) (Anatomical factor) (nasopharynx), (oropharynx), (hy-popharynx) 가 , 60~65 가 60%, 40% 가 (1-3). Gislason (4) 4,064 30~69 15.5%가 가 가 (1). (2) (Functional factor)

2) 정 의

(inspiration) 가 (simple snoring) 가 (sleep fra- gmentation) (habitual snoring) 가 (sleep efficiency) 가

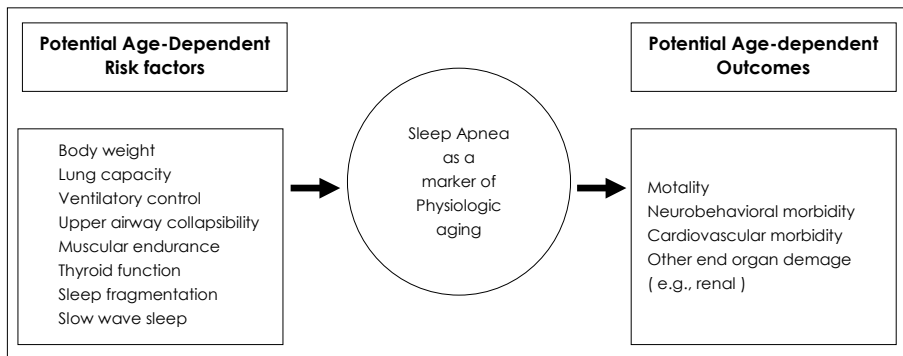


Fig. 1. Sleep apnea in the elderly as an age-dependent condition with other potential associated age-dependent risk factors and outcomes.

Table 1. Prevalence of habitual snoring in the eldly people

Author	Number	Gender	Age (Yr)	Prevalence (%)
Koskenvno et al.,1985 (5)	541	M	60 - 69	10.0
Hyypa and Kronholm, 1989 (6)	735	F	60 - 69	5.7
	263	M,F	71 - 74	6.0
Ancoli-Israel et al, 1991 (7)	78	M,F	75 - 79	1.3
	427	M,F	65 - 95	22.7
Gottlieb et al, 2000 (8)	5777	M,F	64 - 84	23

(3) (ciliary mucosa)
가 가 가

4) 임상 양상 및 합병증

ERT(estrogen replacement therapy)
confounding effect 가 (5,9,10), Zaninelli 가

(4) Hoffstein (12) 가 (11).
가 (macroglossia) 가 가

(5) 가 가 가
가 가

5) 진단

(6) 가 가 (retrognathia, enlarged tongue, narrow airway space, nasal septal deviation) (Alzheimer's disease, Parkinson's disease, stroke)
가 가

, Cephalometry

가

Cine CT MRI, Tom-

ography, Fluoroscopy

가

2. 수면 무호흡증(SAS : Sleep Apnea Syndrome)

1) 유병율

가 (2).
가
가 ,
(4,14,18 - 23).
가
, 22~30%
가 (24,25).

2) 정 의

()
가
10
(4%) , 5~10
1
(Apnea Index)
(RDI :
Respiratory Disturbance Index)
3가 가 가
가 가
가 가

Cheyne - Stroke
(Shy - Drager syndrome, familial dysautonomia)
(muscular dystrophy or myasthenia gravis)

4) 수면 무호흡의 임상적 양상

3) 원인 및 병태 생리학적 기전

Table 2. Prevalence of sleep apnea in the elderly

Author	Number	Gender	Mean age	Prevalence (%)
Webb, 1974 (13)	12	M	54	75
Bixler et al, 1985 (14)	68	M	74	28
	77	F	73	28
Hoch et al, 1986 (15)	56	M,F	69	5.6
Ancoli-Israel et al, 1986 (16)	195	M	72	28
	232	F	69	19.5
Foley DJ et al, 1999 (17)	2905	M	72	12

Table 3. 수면 무호흡과 관계된 임상적 양상

	Central SAS*	Obstructive SAS*
Snoring (choking, gasping)	Minimal	Loud
Body habitus	Normal	Obese
Insomnia	Yes	Rarely
Hypersomnolence	Minimal	Mild to severe
Awakening during sleep	Frequent	Rarely
Sexual dysfunction	Rare	Frequent
Excessive movements	Rare	Frequent
Intellectual deterioration	Minimal	Mild to severe
Fatigue	Mild to moderate	Mild to severe
Personality changes	Yes	Yes
Depression	Common	Rare
Cardiac arrhythmia	Yes	Yes
Hypertension (systemic, pulmonary)	Yes	Yes
Dementia	Yes	Yes
Stroke	Yes	Yes

SAS* : sleep apnea syndrome

가
(asphyxia)
(intra-thoracic negative pressure)
(afterload)
(hypertrophic cardiomyopathy)
Cor. Pulmonale
(26 - 28), NREM
5~14%
, REM NREM
(12,29).
가
(morbidity) (mortality) 가
(26 - 28,30,31).
30%
(32). Mitler 2~8
, 65
(33), 가
가 . He (34)
53 385
20 20 가
(micro arousal)
(3~4)
(35 - 37),
가
(5,36).
가

Table 4. Prevalence of Sleep Apnea (SA) in Patients with Dementia

Author	Number	Mean Age	Sleep Apnea (%)
Ancoli-Israel et al (38)	235	82	42
Smirne et al (39)	23	61	37.5 (men) 33 (women)
Frommlet et al (40)	17	71.5	44 (men) 71 (women)
Hoch et al (15)	34	72	41.7
Reynolds et al (41)	21	70	42.9
Mant A et al (42)	29	75	18.5 (women)
Erkinjuntti T et al (43)	21	65 -	47.5

Table 5. Cognitive impairment in Patients with and without Sleep Apnea

Author	Number	Mean age	Association of SA-dementia
Moldofsky et al (44)	6	73	Positive
Yesavage et al (45,46)	41	70	Positive
Findley et al (47)	26	53	Positive
Berry et al (48)	46	60	Positive

가
(4). Frommlet case - control
Alzheimer 's
71%, 10%
가,
(5).
(cause
and effect)

3. 코골이와 수면 무호흡의 치료

1) 생활적 요법

2) 내과적 치료

protriptyline, progesterone
(oral appliance)
(patency)
uous positive airway pressure)

가
가
(Transmural pressure)

3) 외과적 치료

tonsil adenoid
UPPP(Uvulopalatopharyngoplasty) maxillo-facial surgery
가

4. 상기도 저항증후군(Upper airway resistance syndrome)

UARS 2가 가

UARS 가

가
alpha 가 4~14 가

(intrathoracic negative pressure)

Arousal Index, Flow Volume Loops during Sleep, Empirical Nasal CPAP

결론

가 가

가 가

가 가
가

가

가

중심 단어 :

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