UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Fisiologia del Sonno, Patologie Sonno-correlate e Complicanze Sistemiche

1819-5-H4101D316

Aims

Increase the knowledge about sleep physiology and influence of sleep on cardiovascular systems, both in physiological and pathological conditions.

Contents

Sleep Medicine is a relatively recent discipline that has been introduced throughout Europe in the training of health workers. The knowledge of sleep physiology and of the main sleep disorders provides the student important diagnostic-therapeutic tools with potential effects on the general health status of the patients. The most prevalent sleep disorder , besides insomnia, is certainly the Obstructive Sleep Apnea Syndrome (obstructive sleep apnea syndrome), which includes a wide spectrum of clinical conditions that are related to upper airway narrowing during sleep, particularly in obese and overweight patients. OSAS is a pathology with increasing frequency: about two million people in Italy are affected by this disease. Excessive daytime sleepiness is often referred by OSAS patients, with reduced performance at work and driving. Furthermore, increasing evidence supports the close link between sleep disorders, in particular sleep related breathing disorders to the cerebral and cardiovascular diseases. High prevalence and important complications related to OSAS stimulate a growing awareness by clinicians and students and nursing staff

Detailed program

Prerequisites

Medical students at 5rd year

Teaching form

Teaching methodology:

- Theoretical lessons (slides, power point presentations by teachers with Sleep disorders expertise)

- Theoretical and practical training in the use of dynamic monitors for sleep and cardiovascular parameters

Textbook and teaching resource

1: Lombardi C, Tobaldini E, Montano N, Losurdo A, Parati G. Obstructive Sleep Apnea Syndrome (OSAS) and Cardiovascular System. Med Lav. 2017 Aug 28;108(4):276-282. doi: 10.23749/mdl.v108i4.6427. PubMed PMID: 28853425.

2: Parati G, Lombardi C, Castagna F, Mattaliano P, Filardi PP, Agostoni P; Italian Society of Cardiology (SIC) Working Group on Heart Failure members. Heart failure and sleep disorders. Nat Rev Cardiol. 2016 Jul;13(7):389-403. doi: 10.1038/nrcardio.2016.71. Epub 2016 May 12. Review. PubMed PMID: 27173772.

3: Parati G, Ochoa JE, Lombardi C, Bilo G. Blood pressure variability: assessment, predictive value, and potential as a therapeutic target. Curr Hypertens Rep. 2015 Apr;17(4):537. doi: 10.1007/s11906-015-0537-1. Review. PubMed PMID: 25790801.

4: Parati G, Ochoa JE, Bilo G, Mattaliano P, Salvi P, Kario K, Lombardi C. Obstructive sleep apnea syndrome as a cause of resistant hypertension. Hypertens Res. 2014 Jul;37(7):601-13. doi: 10.1038/hr.2014.80. Epub 2014 May 8. Review.

PubMed PMID: 24804613.

5: Parati G, Ochoa JE, Lombardi C, Bilo G. Assessment and management of blood-pressure variability. Nat Rev Cardiol. 2013 Mar;10(3):143-55. doi: 10.1038/nrcardio.2013.1. Epub 2013 Feb 12. Review. Erratum in: Nat Rev Cardiol. 2014 Jun;11(6):314. PubMed PMID: 23399972.

6: Parati G, Lombardi C, Hedner J, Bonsignore MR, Grote L, Tkacova R, Lévy P, Riha R, Bassetti C, Narkiewicz K, Mancia G, McNicholas WT; EU COST Action B26 members. Recommendations for the management of patients with obstructive sleep apnoea and hypertension. Eur Respir J. 2013 Mar;41(3):523-38. doi: 10.1183/09031936.00226711. Epub 2013 Feb 8. PubMed PMID: 23397300.

7: Parati G, Lombardi C, Hedner J, Bonsignore MR, Grote L, Tkacova R, Levy P, Riha R, Bassetti C, Narkiewicz K, Mancia G, McNicholas WT; European Respiratory Society; EU COST ACTION B26 members. Position paper on the management of patients with obstructive sleep apnea and hypertension: joint recommendations by the European Society of Hypertension, by the European Respiratory Society and by the members of European COST (COoperation in Scientific and Technological research) ACTION B26 on obstructive sleep apnea. J Hypertens. 2012 Apr;30(4):633-46. doi: 10.1097/HJH.0b013e328350e53b. PubMed PMID: 22406463.

8: Parati G, Lombardi C, Narkiewicz K. Sleep apnea: epidemiology, pathophysiology, and relation to cardiovascular risk. Am J Physiol Regul Integr

Comp Physiol. 2007 Oct;293(4):R1671-83. Epub 2007 Jul 25. Review. PubMed PMID: 17652356.

Semester

Assessment method

Interactive verification at the course conclusion.

Office hours