

Featured Research Studies

Chemosphere. 2008 May;72(2):224-32. Epub 2008 Mar 10.

Detection of fungal development in closed spaces through the determination of specific chemical targets.

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In addition to the biodegradation problems encountered in buildings, exposure of their occupants to moulds is responsible for numerous diseases: infections (invasive nosocomial aspergillosis), immediate or delayed allergies, food-borne infections and different types of irritation.

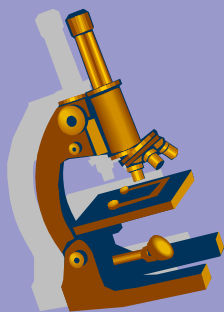
In this context, the aim of our work has been to determine specific chemical tracers for fungal development on construction materials. More generally, by detecting a specific chemical fingerprint of fungal development, our objective was to propose a microbiological alert system which could control systems and/or procedures for the microbiological treatment of indoor areas.

We therefore characterized the chemical emissions from six types of construction material contaminated artificially by moulds. Chemical fingerprints were established for 19 compounds arising specifically from fungal metabolism: 2-ethylhexanoic acid methyl ester, 1-octen-3-ol, 3-heptanol, 3-methyl-1-butanol, 2-methyl-1-butanol, 1,3-octadiene, 2-(5H)-furanone, 2-heptene, alpha-pinene, 2-methylisoborneol, 4-heptanone, 2-methylfuran, 3-methylfuran, dimethyldisulfide, methoxybenzene, a terpenoid and three sesquiterpenes.

Determining the origin of these compounds and their specific links with a growth substrate or fungal species made it possible to judge the pertinence of choosing these compounds as tracers.

Thus the detecting specific volatile organic compounds emitted as from the second day of fungal growth demonstrated that this approach had the advantage of detecting fungal development both reliably and rapidly before any visible signs of contamination could be detected.

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Sexual dysfunction in fibromyalgia patients.

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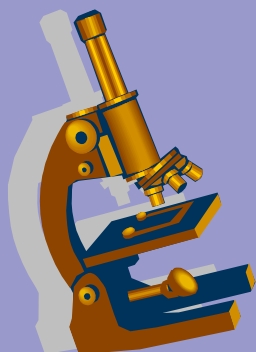
OBJECTIVE:To investigate the prevalence of sexual dysfunction in female patients with fibromyalgia (FM), the impact of FM on sexual activity and the factors associated with sexual dysfunction in these patients.

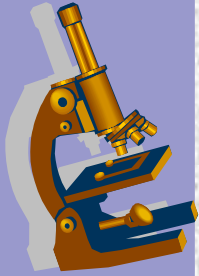
METHODS:Thirty-one consecutive women with FM were enrolled; two groups of 20 aged-matched healthy women and 26 patients with rheumatoid arthritis (RA) were used as controls. Demographic features were recorded in all patients. A cross-sectional analysis of pain (100-mm VAS scale), anxiety and depression (as determined by the STAI and Beck Depression Inventory scales, respectively) was performed. Sexual function was assessed by the Changes in Sexual Functioning Questionnaire (CSFQ).

RESULTS:FM and RA patients showed a significantly higher rate of sexual dysfunction compared to healthy controls. Sexual dysfunction was more frequent among FM patients (97%) than in RA patients (84%) but without statistical differences. A univariate analysis showed that age ($p=0.0002$), marital ($p=0.036$) and work status ($p=0.048$), pain intensity ($p=0.007$), level of anxiety ($p=0.002$), level of depression ($p=0.0005$), were significantly associated with sexual dysfunction in FM. However, only the intensity of depression was associated with the sexual dysfunction in patients with FM in the multivariate analysis ($p=0.012$).

CONCLUSIONS:Sexual function was very frequently and severely affected in patients with FM and this impairment appeared to be particularly associated with the degree of depression. The recognition of this dysfunction and its inclusion for the multidisciplinary management of FM may contribute to improve quality of life of these patients.

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Clin Exp Rheumatol. 2008 Jul-Aug;26(4):519-26.

Prevalence and impact of fibromyalgia on function and quality of life in individuals from the general population: results from a nationwide study in Spain.

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OBJECTIVE:To estimate the prevalence of fibromyalgia (FM) and to compare some descriptive epidemiological and quality of life data between persons with and without FM criteria in a representative sample of the general Spanish population.

METHODS:Cross sectional study of 2,192 Spaniards aged 20 or above, selected by cluster sampling. Subjects were invited to a structured interview carried out by trained rheumatologists to ascertain various musculoskeletal disorders. The visit included screening and examination, validated instruments for measuring function (HAQ) and quality of life (SF-12) and questions about socio-demographic characteristics and musculoskeletal, mental, and other general symptoms. FM was suspected in subjects with widespread pain for more than three months. FM was defined by the American College of Rheumatology classification criteria. All estimates are adjusted to sampling scheme.

RESULTS:The prevalence of FM in Spain is 2.4% (95% CI: 1.5-3.2). FM is significantly more frequent in women (4.2%) than in men (0.2%), with an OR for women of 22.5 (95%CI: 7.2- 69.9), mainly in the 40-49 years age interval. It is more frequent in rural (4.1%) than in urban settings (1.7%), with an OR for rural settings of 2.5 (95%CI: 1.03-5.9). FM is associated with a low educational level, to a low social class, and to self-reported depression. The scores in the HAQ and in the SF-12 were significantly lower in FM subjects, despite adjustment by covariates.

CONCLUSION:FM has a high prevalence in the general population. FM is associated to female gender, comorbidities, age between 40 and 59 years, and a rural setting. Persons fulfilling FM criteria show impaired functioning and quality of life.

PMID: 18799079 [PubMed - in process]

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