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Original Article

Study of Prevalence and Attitudes on Smoking in Patients on Continuous Home Oxygen Therapy. Toma Study

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ABSTRACT

Introduction: The objective of this study was to analyse the prevalence, attitudes and characteristics of smoking in the population of patients subjected to Long Term Home Oxygen Therapy (LTOT) in the Community of Madrid.
Patient and methods: A representative sample of 845 subjects (461 male, 46%) was obtained from a total of 11 174 who fulfilled the inclusion criteria. The mean age was 78.25 years (95% Confidence Interval, CI, 77.55-78.95; SD=10.36). A descriptive cross-sectional study was conducted based on questionnaires as well as CO-oximetry.
Results: Forty-eight subjects were smokers (5.7%; 95% CI, 4.3-7.5) while 438 (51.8%; 95% CI, 48.5-55.2) were ex-smokers. The percentage of active smokers was higher in the 60 years or less subject group (χ^2; P<.001). The large majority (75%) of smokers were men, their proportion being significantly higher than that of current non-smokers (χ^2; P<.003). The mean score in the Fagerström Test was 3.6. More than 65% of smokers had their first cigarette within 30 min of getting up in the morning, and 45% of these were in a preparation stage. Seventeen percent of these subjects said they had not received advice on quitting smoking.
Conclusions: There is a high rate of smoking in patients on LTOT, with a higher probability of males and younger subjects continuing to smoke. There is a high level of physical dependence on nicotine.

Estudio de la prevalencia y actitudes sobre tabaquismo en pacientes sometidos a oxigenoterapia crónica domiciliaria. Estudio toma

Palabras clave:
Tabaquismo
Oxigenoterapia crónica domiciliaria
Dependencia nicotina

RESUMEN

Introducción: El objetivo de este estudio ha sido analizar la prevalencia, las actitudes y las características del tabaquismo en la población de pacientes sometidos a oxigenoterapia crónica domiciliaria (OCD) en la Comunidad de Madrid.
Pacientes y métodos: De un total de 11.174 sujetos que cumplían los criterios de inclusión, se obtuvo una muestra representativa de 845 sujetos. De ellos 461 (54,6%) eran hombres. La edad media fue de 78,25 años

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[IC95%: 77,55-78,95; Dt = 10,36]. Se realizó un estudio descriptivo transversal basado en cuestionarios y acompañado de cooximetría.
Resultados: 48 sujetos (5,7%; IC95%: 4,3-7,5%) eran fumadores y 438 (51,8%; IC95%: 48,5-55,2%) exfumadores. La tasa de fumadores activos fue más alta en el grupo de sujetos con 60 o menos años (χ^2; p < 0,001). El 75% de los fumadores fueron hombres siendo significativamente mayor su proporción que en los no fumadores actuales (χ^2; p = 0,003). La puntuación media en el test de Fagerström fue 3,6. Más del 65% de los fumadores consumían el primer cigarrillo a los 30 después de levantarse. El 45% de ellos se encontraban en fase de preparación. Un 17% de estos sujetos refirió no haber recibido consejo de abandono del tabaco.
Conclusiones: Alta tasa de tabaquismo en pacientes en OCD, con mayor probabilidad de persistencia del hábito tabáquico entre los varones y los más jóvenes. El 17% de los fumadores no reconoce haber sido alertado sobre la necesidad de abandonar el tabaco. Alto grado de dependencia física por la nicotina.

Introduction

Long-term home oxygen therapy (LTOT) is the treatment of choice for chronic respiratory failure. Two major studies showed that LTOT in hypoxaemic patients with chronic obstructive pulmonary disease (COPD) significantly improves survival and quality of life.[1,2] However, the efficacy of this treatment is related to its proper use. The different regulations state that the use of this type of therapy requires appropriate prescription, adequate compliance, and the absence of tobacco consumption.[3]

At present, population studies are available that examine the prevalence and characteristics of smoking (degree of physical dependence on nicotine and the stage of quitting smoking) in subjects with COPD. These studies have found that the prevalence of smoking among this group of subjects is high and, moreover, that smokers with COPD have a higher degree of physical dependence on nicotine than smokers without COPD.[4,5] However, there are no significant differences in the stages of quitting smoking that both groups are in.[4,5] These data have helped to establish new treatment strategies for these patients.[6,7]

Several studies have examined the prevalence of smoking in patients undergoing LTOT. Some years ago, Cornette et al. studied a group of 250 patients and found that 8.4% of them considered themselves as active smokers.[8] However, when the analysis included the determination of urinary cotinine levels, this figure increased to 17%.8 More recently, a study of the health areas making up the Community of Madrid, which included a total of 860 patients, found that up to 11% of patients with LTOT were active smokers.[9] This figure is higher than that found by a research group in Turkey, who, following a similar methodology, found 6.9% of active smokers in the group of subjects they studied.[10] In view of these data, it appears that prevalence rates may vary depending on the methodology used for the study and that there is variability in each of the areas analysed.

However, although we have data on smoking prevalence in subjects treated with LTOT, there are no large population studies analysing smoking characteristics in this group of patients. We believe that understanding these data would help this therapy to be used more appropriately while improving overall health care for these patients.

The main objective of this study was to analyse the prevalence, attitudes and characteristics of smoking in patients undergoing LTOT in the Autonomous Community of Madrid.

Materials and Methods

Inclusion and Exclusion Criteria

The inclusion criterion was patients over 40 years of age living in the Autonomous Community of Madrid undergoing LTOT for six or more months due to chronic respiratory failure. The exclusion criteria were associated mechanical ventilation, and lack of physical and/or mental capacity to undergo the survey and CO-oximeter study. The study population came from the records of all LTOT patients in the region of the Autonomous Community of Madrid. At the start of the study (March 2008) a total of 11 174 subjects met the inclusion criteria.

Sampling

The sample size needed to estimate the prevalence of smoking among this population was calculated from the total number of patients who met the inclusion criteria. This corresponded to 839 subjects (95% CI, Z=1.96; maximum sampling error of 2.5%, D=0.025; maximum expected proportion of smokers 18%).

Patients were chosen at random from the study population by carrying out an automatic random selection of the codes assigned to each patient (using the random function in an Excel spreadsheet). A total of 1 124 patients were chosen, which was 34% more than needed, due to expected future losses from death, refusal to participate in the study, inability to contact patients, or other reasons.

Method

A cross-sectional study based on questionnaires and CO-oximetry in patients' homes was performed after approval in January 2008 by the clinical studies ethics committee of the *Hospital General Universitario Gregorio Marañón* (Gregorio Marañon University General Hospital) in Madrid. All participating patients gave their written consent.

The field work was carried out by specialised health personnel, who phoned patients before visiting them at their homes. To avoid selection bias, all households in the sample were contacted. The field study was carried out between April and September 2008.

During home visits, the health professionals used the following intervention protocol:

- Identify the subject's smoking status. Three possible categories were considered: Non-smoker, subjects who had never smoked; Ex-smokers, subjects who had gone 6 months or more without smoking; and Smokers, subjects who declared they smoked whatever the type or amount of tobacco.
- Carry-out the CO-oximetry using a CO-oximeter (Micro$^+$ Smokerlyzer®, Bedfont Scientific. England) to determine carbon monoxide (CO) levels in exhaled air.11 A CO level greater than 4 ppm was considered indicative of a smoker.
- Observe attitudes towards tobacco use and analyse the attempts to stop smoking. All subjects were questioned on their reasons for stopping smoking, if they had been advised by a health professional, if they had made any attempt to stop, and whether they had used scientific treatments to stop smoking.

- Determine which stage of stopping smoking they were in. The Prochaska transtheoretical model was used.[12]
- Determine the degree of physical dependence on nicotine using the Fagerström test.[13]

Statistical Analysis

A database was configured in the SPSS version 13.0 software, within Windows, to investigate the data (SPSS Inc., Chicago, Illinois, USA). A descriptive study was conducted of the analysed variables, with the quantitative variables expressed as mean (standard deviation) and qualitative variables as proportions with their absolute frequencies, and a calculation of the 95% confidence interval (CI). The significance level considered for all tests was 5% in a bilateral contrast. Differences between groups were assessed by the χ^2 test for qualitative variables and with the student t-test for quantitative variables, or appropriate non-parametric tests if they did not comply with the conditions of use.

A binary logistic regression model was used to study the association between continued smoking in patients receiving home oxygen therapy and possible risk factors. The stepwise analysis carried out followed the Wald method.

Results

We were able to visit 925 patients (82.3%) out of the total of 1 124 patients. The 199 losses were due to: 64 (5.7%) deaths, 122 (10.9%) could not be located during the study period (did not answer the phone, moved home or were admitted to hospital), and 13 (1.2%) had finished the oxygen treatment. Of the 925 visited, 35 did not wish to participate (3.8%), leaving a total of 890 (96.2%). There were 45 cases (4.6%) excluded due to them not meeting the inclusion criteria. Finally, 845 valid cases were obtained (75.2% of the randomly chosen patients), 0.7% more than the necessary figure of 839 (fig. 1).

Sample Characteristics

The final sample of 845 patients was studied, of whom 461 (54.6%) were male. The mean age was 78.25 years [95% CI, 77.55-78.95; SD=10.36].

The prevalence of smoking among study subjects was 5.7% (48/845) [95% CI, 4.3-7.5]. A total of 438 patients stated that they were ex-smokers (51.8%) [95% CI, 48.5-55.2] while 359 reported never having smoked (42.5%) [95% CI, 39.2-45.8]. Of the 48 cases found to be smokers, only 3 (6%) did not initially declare themselves as smokers in the interview. They were classified as smokers due to the CO-oximetry reading. One of these three revised their initial statement, while the other two continued in their declarations as ex-smokers. In both cases, false positives in the CO-oximetry were ruled out. As a result, the smoking prevalence in our group increased from 5.3% (45/845) to 5.7% (48/845) after carrying out the CO-oximetry.

Table 1 shows the demographic and oxygen therapy characteristics in the group of smokers and compares them with the characteristics of the non-smokers. It can be seen that 75% of smokers were men, which was significantly higher than in the non-smokers (χ^2; p=.003). The mean age of 68.06 years for smokers [95% CI, 64.94-71.18; SD=10.75] was also significantly lower than the mean for the sample and the mean of non-smokers (t-test, p<.001). The number of active smokers increased in the lower age groups: 18.4% of 60 year olds or under in our study were active smokers. This decreased to 4.9% in the over 60s (χ^2, p<.001). Also, the average age for starting LTOT was significantly lower in the group of current smokers than in non-smokers: 64.77 years [95% CI, 61.71-67.83] vs 75.68 [95% CI, 74.97-76.40]; t-test, p<.001.

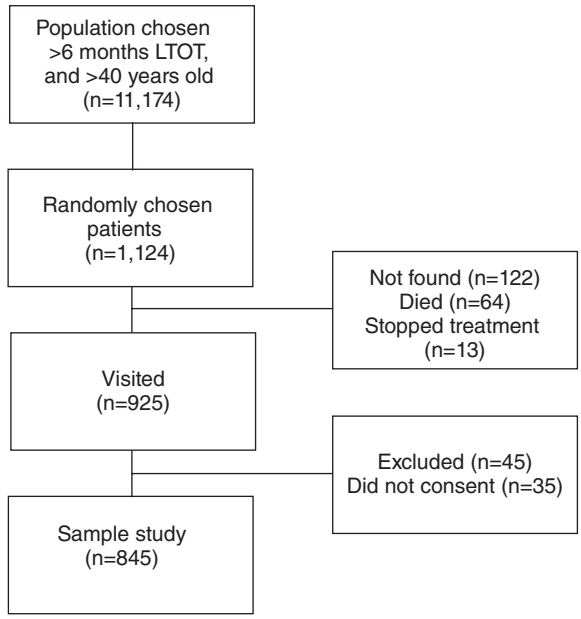

Figure 1. Flowchart of patients included and lost in the recruitment stage of the sample.

A multivariate analysis was performed using a binary logistic regression analysis to establish a predictive model of current smokers treated with LTOT that was adjusted with the significant variables mentioned. The multivariate analysis shows that the variables associated with current smoking are age and sex: if the subject is male, the probabilities and possibilities of being a smoker increase. Also, their probability of being a smoker decreases with increasing age, (age: B =–0.085, p<.001; Exp (B)=0.918. Sex: B = –0.791; p=.025, Exp (B)=0.453). The age when starting oxygen therapy, which was significant in the individual analyses, does not have any explanatory significance regarding the current smoker dependent variable, given that it is correlated with age (Pearson correlation=0.98; p<.01).

Smoking Characteristics (Table 2)

Two of the 48 patients who smoked did not admit to doing so, while, in the other 46, one smoked a pipe and the others reported smoking cigarettes. The average number of cigarettes smoked was 13.12 [95% CI, 10.73-15.52, SD=7.97; range: 2-40, median=10.0]. It must be noted that almost 50% of those who admitted smoking consumed more than 10 cigarettes a day, and had other characteristics that indicated a high degree of physical dependence on nicotine. For example, more than 65% had their first cigarette within 30 mins of getting up, and more than 52% admitted that smoking was what they needed most (table 3).

With regard to the stage of quitting smoking, 21 subjects (45.7%) were found to be in the preparation stage; 5 (10.9%) in the contemplation stage and 20 (43.5%) in the pre-contemplation stage. Eighteen (39%) of the smokers had never tried to stop and the rest had tried occasionally. The maximum duration without smoking was 11.34 months (mode and median=1).

In the past year, 16 (34.8%) patients had made an attempt. Nine of them (56%) did so without any type of health or drug treatment.9 Of the remaining 7, 4 (57%) made an attempt to stop after medical advice without drug treatment and 3 received medication (43%): 1 with nicotine replacement therapy (NRT), 1 with bupropion and varenicline, and the third with NRT, bupropion and varenicline. The mean time without smoking was 1.4 months.

Table 1
Demographic and chronic home oxygen therapy characteristics in current smokers. Compared with current non-smokers

	Total (%)	Women (%)	Men (%)	Mean age [95% CI] (SD)	≤60 years (%)	>60 years (%)	Mean age when starting LTOT [95% CI] (SD) interval _/_	LTOT Time/months [95% CI] (SD) interval _/_	Flow L/min [95% CI] (SD) interval _/_	Oxygen source (%): Gas, concentrator, liquid
Current smokers	48 (5.7)	12 (25)	36 (75)[a]	68.06[b] [64.94-71.18] (10.75)	9 (18.4)[c]	39 (4.9)	64.77[b] [61.71-67.83] (10.54) 39.59/84.90	39.99 [31.56-48.42] (29.01) 9.2/123.6	1.90 [1.76-2.04] (0.48) 1/3	6 (12.5), 38 (79.2), 4 (8.3)
Current non-smokers	797 (94.3)	372 (46.7)	425 (53.3)	78.87 [78.17-79.56] (10.02)	40 (81.6)	757 (95.1)	75.68 [74.97-76.40] (10.33) 36.3/100.2	39.08 [37.29-40.86] (25.71) 8.5/165.8	1.88 [1.85-1.92] (0.53) 1/6	114 (14.3), 603 (75.7), 80 (10.0)
Total	845	384 (45.4)	461 (54.6)	78.29 [77.59-78.99] (10.38)	49 (5.8)	796 (94.2)	75.07 [74.35-75.78] (10.64) 36.3/100.2	39.13 [37.38-40.88] (25.90) 8.5/165.8	1.88 [1.85-1.92] (0.53) 1/6	120 (14.2), 641 (75.9), 84 (9.9)

[a] Significant with respect to current smokers (χ^2) p=.003.
[b] Significant with respect to total and current non-smokers (t-test) p<.001.
[c] Significant with respect to smokers >60 years old (χ^2) p<.001.

Table 4 shows the views and attitudes towards smoking held by the current smokers.

Discussion

A cross-sectional study was carried out to analyse the prevalence and attitudes towards smoking of a group of patients over 40 years old with chronic respiratory failure undergoing LTOT in the Community of Madrid. The main findings were: a) 5.7% of these patients were smokers; b) their mean Fagerström test score was 3.6 points (in addition, over 65% of them smoked their first cigarette within 30 min of getting up); c) up to 45% of them were in the preparation stage; d) 17% of the subjects stated that they had never received stop smoking advice from a health practitioner, and up to 58.7% had never sought help from a health professional to quit smoking; and e) 35% of them however had tried to stop in the past year, but less than half used a scientifically validated stop smoking treatment.

The study was conducted from the database containing information on all patients with chronic respiratory failure undergoing LTOT in the Community of Madrid. We found 11 174 patients who met the inclusion criteria: aged over 40 years and having received more than 6 months of treatment. A representative sample of 1 124 patients was obtained from this group; 925 of these were interviewed. Only 3.8% of these did not give consent to participate in the study, and the results provided corresponded to 845 valid interviews, which was sufficient according to the sample size calculation we did. A sample size larger than necessary was needed to replace patients who could not be interviewed, due to death, not giving their consent, or being untraceable. We studied patients that had undergone LTOT for over 6 months because our aim was to analyse the prevalence of smoking in patients with established LTOT. Also, the age criterion of over 40 years was used in an attempt to homogenise the sample and look for hardened smokers. However, it is worth noting that, having considered the entire population, patients with LTOT under 40 years only made up 2.6% (298/11.472) of the total. Of these, 51.3% (153) were under 10 years old and would probably not have started smoking. We believe that the methodology used minimises the possibility of deviations. Furthermore, the low cut-off of 4 ppm of CO in exhaled breath, to differentiate between smokers and non-smokers, meant we were able to detect both habitual and occasional smokers.[11]

Although only 45 of the 845 respondents (5.3%) initially declared themselves as active smokers, we found 3 more cases of active smoking after performing the CO-oximetry. This increased the prevalence to 5.7%. This figure is high, considering both the type of people it relates to and the pathology they are suffering. In fact, the prevalence of smoking in the general population of the Community of Madrid in people of 60 or more years old, which is the predominant group among these patients, is 12.3%.[14] However, in a similar but less extensive study conducted 9 years ago, it was found that the prevalence of smoking among this group of patients was 11%.[5] Other previous studies in Spain and abroad have found higher figures.[4-6] One of these, the Cornette study, found figures of 8.4% rising to 17% when the measurement of urinary cotinine was used.[4] In our case, the difference in prevalence found between using the survey and CO-oximetry was just 0.4%. We believe that this difference may be due to when the surveys were conducted. The Cienfuegos et al. and Cornette et al. surveys[4,5] were carried out more than 9 and 13 years ago, respectively. We are convinced that the awareness of smoking both in the general population and among health professionals has improved in both Spain and in Europe over the last few years.[15-17]

The majority of the smokers were male and aged between 40 and 60 years old, which may have clinical implications. We also found that the younger people smoked slightly more cigarettes per day on average and were more dependent than older people. However, there

Table 2
Smoking characteristics

	Current mean cigarettes per day [95% CI] (SD) interval _/_		Mean age for starting smoking [95% CI] (SD) interval _/_		Mean max No. cigarettes smoked per day [95% CI] (SD) interval _/_		Mean years smoking [95% CI] (SD) interval _/_		Mean no. of packs/year [95% CI] (SD) Medium interval _/_		Mean CO [95% CI] (SD) interval _/_		Mean %carboxyHb [95% CI] (SD) interval _/_	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
	≤60	>60	≤60	>60	≤60	>60	≤60	>60	≤60	>60	≤60	>60	≤60	>60
Current smokers	n=45 (1 pipe) 13.12 [10.73-15.52] (7.97) feb-40		n=48 18.74 [16.72-20.77] (6.88) nov-48		n=47 (1 pipe) 24.13[a] [19.99-28.27] (13.96) may-60		n=48 49.17 [45.57-52.76] (12.23) 20/73		n=47 (1 pipe) 59.28 [48.51-70.06] (36.28) 55.00 10/156		n=48 8.54[b] [6.62-10.46] (6.6) 0/32		n=48 1.37[b] [1.06-1.67] (1.12) 0/5.12	
	n=11 14.7 n=9 13.2	n=34 12.6 n=36 13.1	n=12 23.5 n=9 17	n=36 17.1 n=39 19.1	n=12 21.7 n=9 19.4	n=35 25.0 n=38 25.1	n=12 39.6 n=9 33.7	n=36 52.4[d] n=39 52.3[f]	n=12 41.7 n=9 32.0	n=35 65.5[e] n=38 65.0[f]	n=12 9.5 n=9 7.1	n=36 8.22 n=39 8.9	n=12 1.5 n=9 1.14	n=36 1.3 n=39 1.42
Ex-smokers n=438	-		16.95 [16.52-17.38] (4.58) aug-45		30.16 [28.78-31.54] (14.63) may-80		46.03 [44.93-47.13] (11.71) oct-75		70.48 [66.79-74.17] (39.06) 60 2.5/216		0.63[c] [0.54-0.71] (0.89) 0/4		0.1[c] [0.08-0.11] (0.14) 0/0.64	
Women n=57 Men n=381 ≤60 n=30 ≥60 n=408			22.1 17	16.2[d] 16.9	20.6 31.8	31.6[d] 30.0	40.8 31.2	46.8[d] 47.1[g]	45.4 51.9	73.8[d] 71.9[g]	0.74 0.87	0.61 0.61	0.12 0.13	0.09 0.10
Non-smokers n=359	–		–		–		–		–		0.19 [0.14-0.25] (0.54) 0/4		0.03 [0.02-0.04] (0.09) 0/0.64	
Women n=315 Men n=44 ≤60 n=10 ≥60 n=349											0.20 0.10	0.14 0.20	0.03 0.02	0.02 0.03

[a]Significant with respect to ex-smokers (t-test) p=.008.
[b]Significant with respect to ex-smokers and non-smokers(t-test) p<.001.
[c]Significant with respect to non-smokers (t-test) p<.001.
[d]Significant with respect to women (t-test) p≤.001.
[e]Significant with respect to women (t-test p=.05 and Mann-Whitney u-test p=.016).
[f]Significant with respect to ≤60 years (t-test and Mann-Whitney u-test) p<.02.
[g]Significant with respect to ≤60 years (t-test) p≤.001.

Table 3
Fagerström test for nicotine dependence

Fagerström test	n=46 (only declared smokers)	n	%	[95% CI] (Wilson)
Fagerström evaluation (mean)	3.63			
[95% CI]	[2.92-4.35]			
(SD)	(2.4)			
interval _/_	0/9			
How long is it before your first cigarette after getting up?	>60 min	5	10.9	5-23
	31-60 min	11	23.9	14-38
	6-30 min	19	41.3	28-56
	<5 min	11	23.9	14-38
Do you find it difficult not to smoke in places where it is forbidden (hospital, cinema, library, etc)?	Yes	8	17.4	9-31
Which cigarette do you need most	All of them	22	47.8	34-62
	The first of the day	24	52.2	38-66
How many cigarettes do you smoke a day?	<10	23	50.0	36-64
	11-20	18	39.1	26-54
	21-30	2	4.3	1-15
	>31	3	6.5	2-18
After having the first cigarette of the day, do you smoke a second straight away?	Yes	11	23.9	14-38
Do you smoke even if you are ill in bed most of the day?	Yes	11	23.9	14-38

Table 4
Attitudes towards smoking

	n	%	[95% CI] (Wilson)
Do you think it would be beneficial for your health to stop smoking?			
Yes	46	100.0	92-100
Do you want to stop smoking?			
No	20	43.5	30-58
Have you ever received medical advice to stop smoking?			
Yes	38	82.6	69-91
Have you ever sought medical professional help to stop smoking?			
No	27	58.7	44-72

were no statistically significant differences. Although all patients with chronic respiratory failure treated with LTOT should be alerted about their smoking, our study found a special risk group (men under 60 years) who should be particularly questioned about their smoking. It is also worth noting that, in our study, women who smoked had a higher dependency ratio than men, smoking more cigarettes per day, and with higher levels of CO in exhaled air.

Fifty percent of smokers smoked over 10 cigarettes per day, with the average consumption being 13. This figure is not very different from that found in the survey of smokers in the general population of the Community of Madrid, which was 15.1 a day.[14] However, in our group, the average level of CO in expired air was only 8.5 ppm, which is slightly lower than expected for the number of cigarettes smoked per day by these patients. Presumably, these individuals had a particular consumption pattern: to inhale lightly and superficially with fewer puffs on each cigarette.[11]

The degree of physical dependence on nicotine and the attitudes towards smoking of these smokers are two issues that have not been addressed by other authors, and probably constitute the most original part of our study. It is worth noting that the mean Fagerström test score for these subjects was 3.6. In addition, over 65% of the patients smoked their first cigarette within 30 min of getting up. This indicates a high degree of physical dependence on nicotine.[18] One study conducted in Spain found that the mean Fagerström test score in the general population of smokers was 3.1, and 42.3% of them were considered as having a moderate to high degree of physical dependence on nicotine.[7] These data would support the view that smokers with chronic respiratory failure undergoing LTOT make up a special group of smokers with a high degree of physical dependence on nicotine and a high daily consumption of cigarettes.

Although 100% of the patients interviewed acknowledged that smoking was harmful to health, only 56.5% of them wanted to stop. This figure is only slightly higher than that found in the general population of smokers in the Community of Madrid, 43%.[14] It thus appears that awareness of smoking in this group of smokers with pathology does not differ much from that of smokers who have not yet developed smoking-related diseases. However, up to 45% of these patients were in the preparation stage, while only 19.5% of the general population are in this stage.[14] This is a fact with important repercussions that must make health professionals who treat these patients continuously and relentlessly provide them with information and support with regard to their smoking. This becomes even more relevant if we consider that up to 17% of the subjects state that they had never received stop smoking advice from a health practitioner, and up to 58.7% had never sought help from a health professional to stop smoking. Also, although almost 35% of these patients had tried to stop in the previous year, only half of them had used scientific treatments, thereby significantly reducing their chances of success.

As a conclusion, this study found a lower prevalence of smoking among this group of patients with LTOT compared to previous studies in the same population in the Community of Madrid. Nevertheless, those still smoking have little desire to stop, with nearly one-fifth of them claiming they had never received stop smoking advice from a health practitioner, or at least had not perceived it as such.

NOTE: This study was conducted by a study group of the *Sociedad Madrileña de Neumología y Cirugía Torácica* (Madrid Society of Pneumology and Thoracic Surgery), NEUMOMADRID, sponsored by Carburos Médica-Air Products Sur Europa SL.

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