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# Swallowing phobia: symptoms, diagnosis and treatment

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**Introduction.** Choking phobia (or swallowing phobia) is characterized by a fear of swallowing foods, liquids or pills, sometimes after an episode of choking on food.

**Methods.** Forty-one case reports on swallowing phobia from 1978 to 2005 were studied. Clinical and therapeutic variables of the disorder were studied.

**Results.** It appears to occur more often in females (two-thirds of the cases) and has a high comorbidity with anxiety disorders (panic disorder, 41 %; obsessive conditions, 22 %, and separation anxiety, 15 %). Life-events and eating traumatic antecedents are frequently present (44 % and 56 % cases, respectively). Cognitive-behavioral treatments have been of proven efficacy, as well as anti-panic drugs (alprazolam, lorazepam, bromazepam, imipramine, clomipramine, fluoxetine, paroxetine) with a remission rate of 58.5 %. Gender and treatment differences are also analyzed.

**Key words:**  
Phobian choking. Swallowing. Eating. Comorbidity.

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## Fobia a tragar: clínica, diagnóstico y tratamiento

**Introducción.** La fobia a tragar (o a atragantarse) se caracteriza por miedo a atragantarse al ingerir comida, líquidos o pastillas, a veces tras un episodio de atragantamiento con comida.

**Métodos.** Se han analizado las publicaciones entre 1978 y 2005 en las que se recogían 41 casos con fobia a tragar. Se estudiaron las variables clínicas y terapéuticas del trastorno.

**Resultados.** Parece suceder más en mujeres (dos tercios de los casos) y tiene una alta comorbilidad con trastornos de ansiedad (pánico, 41 %; patología obsesiva, 22 %, y ansiedad de separación, 15 %). Con frecuencia

existen antecedentes traumáticos en la ingesta o sucesos vitales (56 y 44 %, respectivamente). Se han mostrado eficaces los tratamientos cognitivo-conductuales, así como fármacos antipánico (alprazolam, lorazepam, bromazepam, imipramina, clomipramina, fluoxetina, paroxetina) con una tasa de remisiones completas del 58,5 %. Estudiamos las diferencias por sexo y por tratamientos utilizados.

**Palabras clave:**  
Fobia. Tragar. Atragantarse. Alimentación. Comorbilidad.

## INTRODUCTION

Choking or swallowing phobia is characterized by fear of suffocating on swallowing food, drinks or pills. Its prevalence is unknown, although it could be a very frequent disorder. However, a clinical description of only 41 cases appears in the scientific literature<sup>1-18</sup> and, in fact, the first clinical description did not appear until 1978. Thus, it does not have a recognized diagnostic entity in the international classifications. For example, it appears in the 4th revised edition of the Classification (American) of mental diseases (DSM-IV-TR) as a specific phobia in the residual category together with phobias to vomit or getting a disease<sup>19</sup>.

However, our group thinks that this disease merits greater attention, given that it may associate important physical and psychiatric complications on both the physical (dehydration, malnutrition, weight loss) and psychiatric level (both by secondary avoidant or depressive attitudes and its elevated comorbidity).

## METHODS

The publications collected in Medline between 1978 and 2005 (table 1) that describe 41 cases of choking or swallowing phobia) have been analyzed.

The following variables were obtained from each work: gender, age, background of choking or traumatic events

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**Table 1** Cases published with swallowing phobia (1978-2005)

Reference	No. of cases	Age	Gender	Comorbidity	Treatment	Course
Bailly et al., 2003 <sup>1</sup>	1	11	1 W	OCS, SA	CBT + FLX	PR
Ball and Otto, 1994 <sup>2</sup>	3	20-33	3 W	n = 1 DEP + TP n = 1 PD + OCD	CBT	2 CR, 1 PR
Brown et al., 1992 <sup>3</sup>	1	36	1 M	—	CBT	CR
Brown et al., 1986 <sup>4</sup>	3	40-78	3 W	n = 1 ALZ, n = 2 DEP + PD	n = 1 IMI n = 1 FNC n = 1 TCP	CR
Chatoor et al., 1988 <sup>5</sup>	5	8-11	2 M 3 W	n = 1 SA n = 2 DEP n = 1 ODD n = 1 OCD n = 1 PS n = 2 SD	N = 5 CBT N = 2 IMI	n = 3 CR n = 1 PR n = 1 TRF
Chorpita et al., 1997 <sup>6</sup>	1	13	1 W	PD	CBT	PR
De Lucas et al., 2001 <sup>7</sup>	1	14	1 W	—	CBT	CR
Greenberg et al., 1986 <sup>8</sup>	2	24 y 60	2 W	n = 2 PD	ALP	CR
Greenberg et al., 1988 <sup>9</sup>	3	28-43	1 M 2 W	n = 1 PD	ALP	n = 2 CR n = 1 PR
Kaplan and Evans, 1978 <sup>10</sup>	1	29	1 W	—	CBT	PR
Kaplan, 1987 <sup>11</sup>	1	34	1 W	DEP	IMI	CR
Landy, 1988 <sup>12</sup>	1	10	1 M	SA	CBT	PR
Liebowitz, 1987 <sup>13</sup>	2	20 y 39	2 W	n = 1 PD n = 1 DEP	ALP	n = 1 CR n = 1 PR
Lukach and Bruce, 1988 <sup>14</sup>	1	49	1 W	—	CBT	CR
McNally, 1986 <sup>15</sup>	1	30	1 M	—	CBT	CR
Montañés et al., 2005 <sup>16</sup>	9	9-42	4 M 5 W	N = 2 SA N = 1 DEP N = 1 ODD N = 3 AAP N = 4 OCD N = 6 PD N = 1 SD	n = 4 CBT n = 2 CBT + CMI + ALP n = 1 CBT + BRZ n = 1 CBT + BRZ n = 1 CBT + LRZ + PRX	n = 1 CR n = 2 PR n = 1 RR n = 1 TRF n = 1 UDD
Ost, 1992 <sup>17</sup>	1	68	1 W	—	CBT	CR
Solyom, 1980 <sup>18</sup>	4	21-60	4 M	n = 2 OCD n = 2 PD n = 1 SD	CBT	n = 2 CR n = 1 PR n = 1 UDD

M: man; W: woman; ALZ: Alzheimer's dementia; SA: separation anxiety; DEP: depressive disorder; ODD: oppositional defiant disorder; AAP: avoidant-anxious personality; OCD: obsessive-compulsive condition; PS: psychotic disorder; PD: panic disorder and/or agoraphobia; SD: sleep disorder; ALP: alprazolam; BRZ: bromazepam; LRZ: lorazepam; CMI: clomipramine; IMI: imipramine; FLX: fluoxetine; PRX: paroxetine; CBT: cognitive-behavioral treatment; CR: complete remission; PR: partial remission; RR: complete remission with subsequent relapse; TRF: transformation (complete remission with subsequent appearance of different disorder; UDD: unknown (evolution) due to drop-out.

during intake, previous problems with food, presence of environmental stressors, existence of symptoms such as regurgitation or foreign body, evolution time of phobia until patient reaches consultation, existence of comorbidity with other psychiatric problems, treatment prescribed for the phobia prior to the consultation, effective treatment prescribed, evolution towards remission or others, time it takes for improvement and follow-up time of the patient (in months).

## RESULTS AND DISCUSSION

### Epidemiology and clinical symptoms

Female predominance has generally been described in this disorder<sup>20</sup>. In fact, when the cases were studied as a whole, there was a greater proportion of women, this being almost two thirds (65.8%). The patients' age varies greatly, ranging

from 8 to 78 years. Cases have been described in all the ages, going from children and adolescents<sup>1,5-7,12,16</sup> to the elderly<sup>4,17,18</sup>. However, the most frequent is that it appears in the middle age of life, the average being  $31.36 \pm 19.5$  years.

One of the concepts commonly dealt with in relationship with swallowing phobia is the existence of a traumatic choking event, after which fear of swallowing and choking during intake develops. However, when the cases described are reviewed, there is a high percentage of cases in which such a situation does not exist as a background and there is also no event that may be related (as we will see). Only 39% of the patients had previously choked on a food, then developing fear of swallowing. The foods varied greatly: meat, shrimp, fish or fish bones, fried potatoes or pop corn, nuts, pasta, etc. There were 5 other cases (12.2%), all of them women, who had not choked on a food but had suffered some problem at the time of the intake, developing the phobia afterwards. One case had witnessed a shooting in a restaurant where he was eating<sup>10</sup>, another had suffered a panic attack while eating<sup>4</sup>, a third patient had had to take an unpleasant medications orally in childhood after which she developed the phobia<sup>14</sup>, the phobia arose in another patient after a period of very painful dysphagia due to infectious mononucleosis<sup>7</sup> and finally another patient began with the phobia after having broken a tooth while eating<sup>16</sup>. There are two additional cases in which the phobia initiated after witnessing a choking episode in a family member that they lived with<sup>1,18</sup>. In the remaining cases (43.9%), there was no background of this type.

On the contrary, what we have found is that even though it is not stressed as one of the characteristic traits of the swallowing phobia in the literature, the descriptions given state that 43.9% of the cases have the presence of life stressors or are linked to the onset of the phobia or to an increase in its intensity. Thus, there is a background of academic stress (school examinations or entry into a foreign university) in 4.9% of the cases. In 9.75% of the cases, the phobia had begun when the patient began with a physical disease or received a new diagnosis. In another case (2.44%), the phobia was related with work stress. However, the most frequent was that the stressor was the problem within the family nucleus (26.83% of the cases). It must be stressed that we could not verify that these stressors did not exist in the remaining cases published, since the non-existence of this information in the clinical descriptions available could be due to the absence of stressors or to not having assessed this possibility when evaluating the case.

The same occurs if we look at possible symptoms associated with swallowing phobia, such as the presence of regurgitation or sensation of a foreign body. There are three cases (7.32 %) in which presence of regurgitation is described<sup>16,18</sup>. One of them suffered a hyperactive nauseous reflect<sup>18</sup> and two cases (4.88%) had the sensation of a foreign body<sup>16</sup>. We consider it most likely that in the remaining cases or series published, the presence of these

symptoms was not investigated in the cases of swallowing phobia instead of there simply not appearing.

Evolution time of the phobia until the patient reached the consultation may vary greatly, ranging from between 5 weeks and 30 years. The average is 4 years ( $48.09 \pm 82.63$  months). In general, we have observed that the previous evolution time is greater in adults than in children and adolescents: an average of  $68.6 \pm 98$  months versus  $14.4 \pm 27.8$  months (ranges: 2-360 and 1.25-96, respectively). The cases that take the longest to come to the consultation are generally non-complete swallowing phobias, that is, they avoid one type of food but continue to eat others, or the phobia is not constant, but becomes worse in relationship to stressors and improves at other times and, generally, there is no weight loss of if there is, it is not very important<sup>7,16</sup>. It is the classic criterion used in the diagnosis of mental disorders, of the grade in which the psychiatric disorder interferes in the daily life of the subject<sup>19</sup>.

Comorbidity with other disorders, mainly anxious, is very frequent. However, it generally has not been described as something characteristic of the swallowing phobia. Thus, when the patients are described in the publications, there are some cases in which it is mentioned that they suffer some disorder associated to swallowing phobia, but in some, it is not specified if there is comorbidity or not. Once again, this is not sufficient to guarantee its absence. To the contrary, there is a good review on the subject<sup>20</sup> that stresses the differences between swallowing phobia and a series of disorders (panic, obsessive disorders, etc.) to be able to rule these disorders out in the differential diagnosis. This may have led to underevaluating the presence of associated disorders. When we reviewed the cases published, we found that there is comorbidity with depressive pictures in 17% of the cases, with panic disorders in 41.46%, with obsessive-compulsive disease (personality traits or disorder) in 21.95% and with separation anxiety in 14.63 % of the cases published (with its adult equivalent, anxious-avoidance personality in another 4.9%). There are also sleep disorders in 7.3 % of the patients, oppositional defiant disorder in one case (2.44%) and both in another case<sup>5</sup>. Finally, it appears in other disease where we feel that it may be a symptom to consider since it may complicate the course due to secondary malnutrition. One case is collected in a patient with Alzheimer's dementia<sup>4</sup> and two other cases of psychotic patients, or in our opinion, with psychotic obsessive-compulsive disorder<sup>5,18</sup>, both with very poor evolution based on the clinical description.

In regards to whether there are family grouping of the problem of swallowing phobia or the presence of other anxious disorders (or others) in the family of the cases, we cannot draw conclusions with the data available in the cases published. Once again, we believe that the presence of family background may not have been investigated in most of the patients described, since it only appears in four cases, one of them described by De Lucas<sup>7</sup>: generalized anxiety in

the mother, and three belonging again to the series of nine cases of Montañés<sup>16</sup>: trichillomania in an aunt of the patient, avoidant-anxious personality in the mother of another case and tics in the son of another patient. All the cases of family background were women.

## Differences by gender

Differences of age by gender are limited:  $32.74 \pm 18.94$  years in women and  $28.71 \pm 21$  years in men.

Out of the subjects with choking background, 68.75% were women (value similar to that of women in the total sample: 65.8%) and there were only differences in the fact of having suffered a problem (other than choking) during intake, prior to the phobia: the five cases in which this circumstance occurred were women.

Regarding the presence of environmental stressors, the two cases of academic stressor were in men. This also was true for work stressor. There was the same number of men and women whose stressor was the onset of the medical disease. And the women whose stressor was family were 63.6%, a value similar to their proportion in the total sample.

There were the same number of men and women with eating problems prior to the onset of the phobia.

The three cases that had regurgitation were men, while the two patients who had a sensation of a foreign body were women.

Evolution time of the phobia was greater in men: on an average  $80.12 \pm 113$  months (range: 1.25-360) versus an average in women of  $31.23 \pm 57.45$  months (range: 1.5-240 months). There was previous treatment only in three cases and all were women.

The four cases that had family background were women. Regarding the presence of comorbidity, and remembering that the proportion of women in the sample was 65.8%, it stands out that women more frequently had an associated depressive disorder (87.5% of the cases with this comorbidity were women), panic (82.3%) and avoidant personality (the two cases were women) and somewhat less frequently has obsessive-compulsive disorder (55.5%).

Women received only drug treatment more frequently than men (37% and 7% respectively). The cases who received alprazolam were mostly women (89%) and all the cases who received monoamine oxidase inhibitor (MAOI) or selective serotonin reuptake inhibitors (SSRI) were also women. On the contrary, men only received cognitive-behavioral treatment more frequently than women (78.57% and 40.74%, respectively). Finally, there was a tendency to use combined treatment more in women than in men (22.2% versus 14.3%).

The percentage of complete remissions in women (70.85) was slightly greater than the proportion of women in the sample (65.8%).

There were no important differences in the time taken to improve or in the period that the female and male cases remained in follow-up, or in the percentage of drop-outs.

## TREATMENT AND COURSE

Based on the data available, it is rare that the subjects have taken or received any treatment before coming to the consultation since it was only found that previous treatment had been received in three cases (7.3%) before coming to the consultation. This is strange given the long course of the condition in most of the cases (as we have seen, four years on an average). However, it may be because the phobias were incapacitating, as we have already seen. The three cases correspond to young adult women (33, 29 and 42 years, respectively) and they had received benzodiazepines: alprazolam<sup>2</sup>, bromazepam or lorazepam<sup>16</sup>.

In regards to the treatment generally used and that was described as effective in the patients, we have not included approaches based on hypnosis<sup>21,22</sup>, given its limited use in our setting. Regarding the rest of the approaches (table 1), these were mostly psychological: cognitive behavioral treatment (CBT) in 73.17% of the cases published, either alone (53.6%) or combined with drugs (19.5%).

In regards to the drugs used, these were benzodiazepines (alprazolam, bromazepam, lorazepam) or antidepressants with recognized anti-panic efficacy (tricyclics: imipramine or clomipramine; monoamine oxidase inhibitors (MAOIs): phenelzine and tranylcypromine; serotonin reuptake inhibitors (SSRIs): fluoxetine and paroxetine). The benzodiazepine used most is generally alprazolam, since it was administered in 21.88% of the patients, either alone in 17% of them<sup>8,9,13</sup> or combined in 4.88% of the cases<sup>16</sup>. The proportion of complete remissions when it was used alone was relatively high (71.4%), but very low when associated to CBT or CBT plus clomipramine (25%). Very different doses have been used, going from 2 mg/day to 8 mg/day and it seems that complete remissions are more frequent with the intermediate doses (4 mg/day), although the limited number of cases does not make it possible to verify it with certainty.

Only one case treated with lorazepam (together with paroxetine and CBT) has been described. In this case, the phobia abated but there was then an anxious disorder<sup>16</sup> and another with bromazepam (together with CBT) that evolved to complete remission<sup>16</sup>.

The antidepressant used most is imipramine, either alone in two cases<sup>4,11</sup> or associated to CBT in two other cases<sup>5</sup>.

Complete remission was achieved in three of these four cases. Two cases<sup>16</sup> have also been described in which clomipramine was used, in one case at a dose of 37.5 mg/day and in the other 125 mg/day (see above). There are two cases treated with MAOI: one with phenelzine that achieved complete remission and the other with tranylcypromine that reached partial remission<sup>4</sup>.

Regarding the SSRI, they were used in association with the CBT and their use is very recent. One case in 2003 with fluoxetine<sup>1</sup> that achieved partial remission and two other cases in 2005 with paroxetine<sup>16</sup> have been described. Of the two cases, one achieved complete remission and there was transformation to generalized anxious disorder in the other.

Time needed for the cases to improve is very variable. This information is only collected in 17 of the 41 cases published. According to this, it was 1-18 months, with an average of  $3.7 \pm 4$  months.

Evolution to complete remission without complications generally occurs in less than two thirds of the cases. According to the published data, there was complete remission in 58.5% of the patients and partial remission in 29.27%. In one patient (2.44% of the total), there was a relapse after the complete remission that was similar in characteristics and that also abated with the same initial treatment<sup>16</sup>. There were two patients in whom a psychiatric problem that may be related with the phobia arose after having complete remission: in one case, generalized anxious disorder<sup>16</sup> and in the other oppositional defiant disorder<sup>5</sup> (which, as we have seen, may also have a comorbidity with the phobia, or may correspond in some children with separation anxiety to calls for attention to avoid separation).

There are 5 (12.2%) of the 41 cases that have no data on follow-up, since they dropped out of the therapy<sup>2,9,10,16,18</sup>. In the rest, the follow-up period of the cases was 1-24 months and the average  $7.4 \pm 15$  months.

## Differences by treatment

The main differences are summarized in table 2. The patients treated only with drugs, who are generally older than those of the other groups and are mostly women, would have the greatest percentage of complete remissions (72.7%). However, in general, how much time is needed to achieve this improvement is not specified and there are no follow-up data that indicate if there was a relapse or transformation to another symptom or not afterwards.

Patients treated with a combination of CBT and psychodrugs are on the opposite side. In this group, the percentage of complete remissions is only 37.5% and these would also be those who take longest to improve (almost 6 months on an average). This could be related to more serious cases, where the condition interferes more in daily life, since they come to the consultation earlier than the other groups (with less than 5 months evolution) and remain in follow-up more time (somewhat more than 1 year).

In the most numerous group of patients, this being those who only received CBT, the patients had suffered the problem for almost 6 years before coming to the consultation, but improved in 2.4 months on an average and the complete remission percentage is 59%.

In general, the small number of cases (relatively) for each one of the treatments, especially the drug ones, and the

**Table 2** Differences according to treatment used

	Drugs alone	CTB alone	Drugs + CTB
No. of cases	11	22	8
Age	42.5 $\pm$ 18.2 years	28.95 $\pm$ 19.81 years	22.6 $\pm$ 14.8 years
Age range	20-78 years	8-75 years	9-42 years
Time of previous evolution (TPE)	51 $\pm$ 86 months	71.4 $\pm$ 97.3 months	4.78 $\pm$ 3.54 months
TPE range	2-240 months	1.5-360 months	1.25-12 months
Time to improvement (TI)	1 month*	2.4 $\pm$ 0.8 months**	5.7 $\pm$ 5.8 months***
TI range	1 month*	1-3 months**	1-18 months***
Follow-up time (FT)	There is no data	4.3 $\pm$ 15.7 months	13.6 $\pm$ 14.7 months
FT range	There is no data	0-16 months	1-24 months
Percentage of complete remissions	72.7%	59%	37.5%
Percentage of women	90.9%	50%	75%

\*Only follow-up data of one case (n = 1). \*\*Only follow-up data of nine cases. \*\*\*Only follow-up data of seven cases.



absence of data on follow-up in some of the subgroups, are the factors that have led us to rule out the possibility of statistically analyzing the results.

## DIFFERENTIAL DIAGNOSIS

It is very important in this picture to initially establish an exclusion of any organic condition that could cause the symptoms<sup>23,24</sup>. In many cases, we can already establish in the anamnesis if it is fear of swallowing (this would be a genuine phobia) or, on the contrary, if there is a series of real problems that make the subject avoid intake or this is unpleasant for him/her. These problems should be corrected in the first place. It is frequent that these symptoms arise in the odontological consultations since patients have situations that cause extreme fear of suffocating or choking in dental treatments: maintaining the mouth full of water, having dental X-rays or fillings<sup>23</sup>. However, it may also be frequent that once the most basic or usual complementary tests are done in regards to the digestive tract, these are not conclusive and the picture is labeled as having a psychological origin before conducting a more careful anamnesis or more specific complementary tests. With this background reflection, Stacher<sup>24</sup> conducted a study that studied 58 patients who had been sent for assessment to the Psychophysiology Unit of the University of Vienna, with the diagnoses of psychogenic, psychosomatic or functional swallowing disorder, psychogenic vomiting, conversion neurosis, anorexia nervosa, psychosomatic disorders in pregnancy, phobia of cancer or heart or depressive disorders. When manometric tests, pH meters or endoscopic tests were performed, it was found in absolutely all the patients that there were real organic disorders: in 36 cases achalasia, in 5 vigorous achalasia, in 5 others diffuse esophageal spasms, in 6 alterations of the lower esophageal contraction, in one pharyngeal-esophageal discoordination, in another gastric ulcers in cardia and there was gastro-esophageal reflux in 4 cases (of which one had a hypertonic upper esophageal sphincter). Thus, establishing a priori suppositions of psychogenic etiology regarding these symptoms should be avoided, it being more adequate to study them with manometry and/or pH meter in order to find the nature of the problem and be able to thus provide a specific treatment, at least in the cases in which an organic etiology may be suspected with more grounds. We think these cases would be those having real pain or difficulty for swallowing more than fear of doing so<sup>7</sup>, although there is the possibility that fear may be developed secondary after pain on swallowing.

There are also two situations in which swallowing may be made difficult without there being a real swallowing phobia. Fear of swallowing does not necessarily exist in subjects with hypersensitive nauseous reflect, and, in turn, patients with swallowing phobia do not have to have a hypersensitive reflect. On the other hand, there would be the globus (sensation of a lump in the throat), that may appear in al-

most 45% of persons with response to emotions or conversive symptom, but without fear of suffocating with food<sup>7</sup>.

It is also very important to rule out an eating behavior disorder<sup>1,7,25</sup>. The referral we receive may be very biased by the initial impression: confusion is easy when the phobia has lasted for a long period and/or has included many different types of food (and there has been significant weight loss) or when high calorie food such as bread, fried food, meat, are especially avoided. We have already described<sup>7</sup> a 14 year old female patient referred to mental health with the diagnosis of presumption of anorexia nervosa. In the evaluation of this subject, such disorder was ruled out due to the non-existence of body image distortion or coherent physical alterations (amenorrhea, weight loss, etc.). Bailly also presented the case of an 11 year of girl whose swallowing phobia caused such a serious weight loss that she required hospitalization with the diagnostic suspicion of serious anorexia nervosa<sup>1</sup>. However, patients with swallowing phobia do not generally fear weight increase and, in fact, most want to gain back the lost weight. We consider Barofsky's study<sup>25</sup>, which studied adult subjects whose reason for consultation was «psychogenic dysphagia», to be very interesting. These subjects were administered a test to measure general psychological malaise (SCL-90) and a tests generally used in the detection and follow-up of EBD (the EDI-2). The results obtained in the Eating Disorder Inventory-2 (EDI-2) were then compared with those obtained with samples of university men and women with anorexia nervosa and the scores on the SCL-90 were compared with data published on patients with dysphagia with an organic cause (mobility disorder, obstruction disorder or others). The results showed functional dysphagic versus anorexic patients scored significantly lower in all the EDI-2 dimensions except in fear of growing up (we have already seen the relationship of swallowing phobia with separation anxiety and, in general, with anxiety disorders which, in their natural history, seek support from the surroundings, as the panic disorders or obsessive-compulsive condition). On the contrary, they score significantly more than the control groups on the SCL-90 in interpersonal sensitivity, depression, anxiety and on the general severity index. These results seem to rule out the existence of alterations in the eating sphere, in functional dysphagics, although they seem to have significant clinical levels of psychological malaise, especially of anxiety.

In this condition, we have seen that association with other psychiatric disorders is very frequent, most frequently with panic disorder. Given the high frequency of association of panic with swallowing phobia (it appeared in more than 40% of the cases), it seems especially important to differentiate both entities. One idea that has recently arisen<sup>26</sup> is that in addition to the accepted clinical subtypes of panic disorder (cardiac and vestibular), there is a third subtype (the pharyngeal), whose symptoms are related with the pharynx, for example feeling a lump in the throat, discomfort on swallowing or pain in the pharyngeal region. These

symptoms may be present (or feared) in swallowing phobia as we have described above. If there were no more symptoms, this would lead us to consider swallowing phobia as a monosymptomatic form of panic disorder. On the contrary, in the cases in our setting in which we diagnosis panic disorder in addition to swallowing phobia, it would surely be convenient to only diagnose this panic disorder due to considering that swallowing phobia would be one more symptom of panic disorder and thus would be included in it.

Finally, we state that this disorder is generally considered a subtype of simple or specific phobia in international classifications<sup>19</sup>, although there is not a separate section in these classifications for this phobia nor an express distinction regarding the others in terms of clinical and evolutive data. The most established subtypes of specific phobias would be: fear of animals (that would include insects), fear of blood or injuries, situational phobias, and finally fear of vomiting or suffocating on swallowing. Himle et al.<sup>27</sup> have studied these disorder in more detail and conclude that there may be significant differences between the different subtypes, in regards to onset age, family grouping, response to treatment and psychophysiology. In this way, there would be a predominance of female cases in phobias towards animals and choking while the distribution by gender is very similar in the others. Equally, the presence of a family history of phobias of the same type would be significantly different: maximum in situational phobias, minimum in phobias to animals and intermediate in the other two types. However, only the difference between situational phobias (with high family grouping) and phobias to animals was significant. This, together with the same size of the samples handled and the limited number of clinical variables studied make it desirable to have larger studies in this sense.

## CONCLUSIONS

In the clinical description that we can make of the disorder, its appearance in all ages, somewhat predominant in women (two thirds of the cases) as well as the presence of stressors (44% of the cases) above all, family, stand out. In the genesis of the disorder there is generally a choking episode (39% of the cases) or unpleasant circumstance during intake (12%). It has a high comorbidity with anxious disorders (panic in 41%, obsessive condition 22%, separation anxiety 15%, sleep disorder 7%, etc.) and depressive disorders (17%). They commonly take time in coming to consultation (an average of 4 years) although they generally improve quickly (less than 4 months). With the usual treatments (CBT, alprazolam, imipramine, etc.), they generally improve, although the percentage of complete remissions is somewhat less than 60%.

The results of the present study cannot be considered conclusive, given the sample size, lack or absence of data (above all in certain variables) and, finally, due to the heterogeneity of the sample. It would be advisable that all the

studies include data on stressors and traumatic events as well as symptoms associated to phobia. There should also be family backgrounds, given the high personal comorbidity. Finally, it would be convenient to specify more the grade of improvement reached, latency in reaching it and follow-up duration (and the evolution of the problem during this follow-up).

Thus, we believe it is necessary to perform well designed and more systematic studies that allow us to detect the condition, to be able to discover prevalence data and to obtain a sufficient casuistic that makes it possible to know the psychopathology and evolution of the problem better and thus to design better therapeutic strategies.

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