

LETTERS TO THE EDITOR

Aortic-vena cava fistula

A propósito de un caso de fístula aortocava

To the editor:

Aortic-vena cava fistula is a rare entity, present in less than 6% of ruptured abdominal aortic aneurysms according to some series^{1,2}. The most frequent cause is usually erosion of an aneurysm (in 80% of cases), although there may be other causes such as trauma, mycotic aneurysms, Takayasu's disease or connective tissue disease³. The main symptom is abrupt abdominal pain which may be associated with congestive heart failure. A pulsatile abdominal mass, continuous abdominal murmur and, occasionally, oedema in the lower limbs are usually detected at physical examination^{4,5}.

A 78-year-old man, with no pathological history of interest, consulted the emergency department for 24-hour epigastric pain irradiating to the retrosternal area with discomfort in the left hypogastrium and associated vegetative cortege. On arrival, the patient was severely affected, with pallor and sweating. He was afebrile, with a blood pressure of 105/50 mmHg, heart rate of 97 bpm and O₂ saturation of 98%. The electrocardiogram showed elevation of the ST segment in DIII and VF with underlevelling in the precordial leads and DI. Elevated cardiac biomarkers (troponin 0.40 ng/mL, myoglobin 141.2 ng/mL), elevated creatinine (2.62 mg/dL), without anaemia and minimal leucocytosis were observed. With these data, he was diagnosed with acute coronary syndrome and was seen by hemodynamics specialists. On examination, a pulsatile mass was palpated in the left hypogastrium with a systolic murmur, so urgent CT angiography was performed on suspicion of complicated aortic aneurysm. The rest of the arterial examination was normal. A left common iliac artery aneurysm of 7 cm in diameter with early filling of the left iliac and inferior vena cava was observed on CT angiography, all suggestive of arteriovenous fistula (AVF). Urgent echocardiogram showed signs of right overload with severe tricuspid insufficiency associated with paroxysmal atrial flutter episodes, with probable acute onset. With the diagnosis of congestive heart failure secondary to aortic-vena cava fistula, it was decided to perform urgent surgery. The intervention was performed under general anaesthesia and an aortoiliac endoprosthesis was implanted, after embolization of the left hypogastric artery. In the immediate postoperative period, the patient presented remission of the cardiologic symptoms, with progressive reduction of cardiac bio-

markers and improvement of renal function. He presented functional impotence in the lower left limb, with no significant findings on nuclear magnetic resonance and electromyogram, probably related to spinal cord ischemia secondary to surgery.

Aortic-vena cava fistula is a serious and uncommon condition, with a variable clinical presentation that can delay the diagnosis. Given the clinical variability of this pathology, clinical exploration is fundamental and suspicion should be established in all patients with presence of abdominal murmur. Treatment consists of AVF repair and bleeding control. Previously, the treatment of choice was open surgery. With the development of endovascular techniques, other treatment options are proposed with a lower risk of blood loss, and therefore lower mortality, although with a greater risk of persistent arteriovenous communication, which usually requires subsequent interventions as in this patient.

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References

- 1 Cinara IS, Davidovic LB, Kostic DM, Cvetkovic SD, Jakovljevic NS, Koncar IB. Aorto-Caval Fistulas: A Review of Eighteen Years Experience. *Acta Chir Belg*. 2005;105:616-20.
- 2 Tonolini M, Ippolito S, Rigioli F. Images in medicine: Spontaneous aortocaval fistula complicating abdominal aortic aneurysm. *J Emerg Trauma Shock*. 2014;7:129-30.

3 Lorenzati B, Perotto M, Bottone S, Tenconi G, Gazzina G, Cataldi W. Aortocaval fistula. *Intern Emerg Med*. 2014;9:895-6.

4 Psathas ED, Lioudaki S, Doulaptis M, Charalampoudis P, Klonaris C, Verikokos C. Clinical Manifestations of Aortocaval Fistulas in Ruptured Abdominal Aortic Aneurysm: Report of Two Cases Case. *Reports in Surgery* 2012.

5 Lebon A, Agueznaï M, Labombarda F. High-Output Heart Failure Resulting From Chronic Aortocaval Fistula. *Circulation*. 2013;127:527-8.

Cardiopulmonary resuscitation and "The Unknown Woman of the Seine"

Reanimación cardiopulmonar y la Desconocida del Sena (L'Inconnue de la Seine)

To the editor:

This year marks the 50th anniversary of Resusci Anne[®], a mannequin that has saved the lives of hundreds of thousands of people. We wish to offer her a well-deserved homage by remembering her story.

Around 1880 the body of a young woman aged about 17 years was floating in the river Seine (Paris). She had no signs of violence and suicide was suspected. In spite of being drowned, she still had a serene smile and harmonious facial features. Nobody claimed the body and it was transferred to the morgue, where one of the employees made a mortuary mask which he named L'Inconnue de la Seine (the Unknown of the Seine), which was a source of inspiration for artists. In addition, it was reproduced to the point of satiety and became an adornment in homes of the bourgeoisie of the time¹. The earliest allusion to mouth-mouth resuscitation is found in the Bible, when God created Adam (Genesis 2:7) and when the prophet Elisha (1 Kings 17:17-22) "raised a dead child"². Over the centuries there were timid attempts to control the airway in unconscious people, all of which failed. It was not until the early 1960s that doctors Kouwenhoven and Safar described the sequential technique of cardiopulmonary resuscitation (CPR) as we know it today. Peter Safar (1924-2003) was an Austrian physician who specialized in surgery (Yale University) and anaesthesiology; and he investigated opening of the airway (forehead-chin and mandibular traction manoeuvre). In 1956 he demonstrated in healthy volunteers paralyzed with curare that by exhaling the air by means of a mouth to mouth manoeuvre it was possible to maintain optimum levels of oxygen without the person breathing¹. In 1966 his 12 year-old

daughter Elizabeth passed away as a result of an asthmatic crisis. It was then that Safar directed his research into what he called "Cardiopulmonary and Cerebral Resuscitation" (CPCR)⁴ and started the Freedom House Enterprise Ambulance Service, the first out-of-hospital ambulance service staffed by paramedics. To this end, he commissioned a Norwegian toymaker, Asmund Laerdal, to create a plastic doll that could be used to train non-health personnel. Laerdal developed the torso of a mannequin that simulated an unconscious patient, and for the face to have a natural appearance he used the model of a mask on the wall of his grandparents' house: L'Inconnue de la Seine. In this way, the anonymous Parisian became the face of Resusci Anne, name of the first training mannequin¹. In 1966, the first conference on CPR was held at the National Academy of Sciences and the National Research Council of the United States, laying the foundations for its protocol and establishing the need to generalize its training to non-health personnel¹.

Currently the female mannequins of the Laerdal company of RPC simulation are named Anne: Resusci Anne[®], Little Anne[®], Baby Anne[®] and Mini Anne[®]...

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References

- Safar P. On the history of modern resuscitation. *Crit Care Med*. 1996;24(Suppl):S3-S11.
- Gargantilla P. Manual Historia de la Medicina. 4ª edición. Ed. Málaga: Grupo 33; 2015.
- Tjomsland N, Bassett P. The resuscitation greats. Asmund S. Laerdal. Elsevier. 2002.
- Safar P, Bircher NG. Reanimación Cardiopulmonar y Cerebral. Ed. Madrid: McGraw-Hill Interamericana de España; 1989.

Treatment for ingested foreign bodies

Tratamiento de la ingesta de cuerpos extraños

To the editor:

Foreign body ingestion is a common reason for emergency department (ED) visits. Most cases (80%) involve children under 7 years of age and 90-95% are inconsequential so no therapeutic action is required. Only when the foreign body is motionless and causes some complication or is associated with toxicity should it be extracted urgently. Its location will depend on the age of the patient, characteristics of the object, time elapsed or pre-existing disease¹⁻⁵.

We present our experience in the period 2012-2015 of patients who have required hospitalization for foreign body intake (n = 120). The age range is 8 months to 97 years (median 48 years), 36 cases in minors. In adults (84) there were predisposing factors, such as psychiatric pathology (15), alcoholism (8), mental deficit (7), dementia (7), drug addiction (7), prisoners (6), body-packers and autolytic attempts (1). In the cases of food impaction, several underlying pathologies were found: esophagitis (10 cases: 4 caustic, 2 eosinophilic, 1 reflux and 1 post-radiation), stenosis (8), Schatzki ring (3), Crohn's disease, achalasia (1), tumors (1) or hiatal hernia (1). There was a great variety of objects (n = 125). In 59 cases, they were related to food intake: 19 were meat impactions, 9 unidentified, 8 animal bones, 5 fish bones, 4 dried fruits, 3 clamshells, 3 sausages and 2 fruit pips. Among the non-food related ones (50) were coins (12), batteries (9) or screws (4). In 6 cases they were not identified and in 10 cases they were defined as bezoar. The most common site of impaction was the esophagus (50), followed by the small intestine (32), the stomach (21), and the colon (15). In only 45 cases, the patient was unaware of foreign body ingestion, which was the main reason for ED consultation (28), followed by dysphagia (23), abdominal pain (18), obstructive symptoms (15), choking (8) or vomiting (8). Less frequently there were other reasons for consultation, such as proctalgia or manes, and very non-specific symptoms such as dyspnoea, general malaise or fever. In 14 patients, there was perforation of hollow viscera and in 18 intestinal obstruction.

Oral endoscopy managed to solve the problem in 55 patients, and surgical intervention was necessary in 37. In 16 cases, the object was spontaneously expelled and no procedure was performed. Other alternatives were rigid bronchoscopy (6), rigid esophagoscopy (3), colonoscopy (2) and laryngoscopy (1). No complications were observed in 88 patients. The most frequent

complications included surgical wound (10), esophageal lacerations (8), digestive hemorrhage (3), intestinal fistula / dehiscence (3), bronchospasm (2), intrabdominal abscess (2) and paralytic ileus (2).

The percentage of conservative treatment applied in our series, compared to the literature, is very low due to selection bias, since only patients who required hospitalization were included. There is little high-level evidence regarding the therapeutic management of this condition, although there are international consensus guidelines^{6,7}. The best treatment is prevention. Individualized assessment is mandatory and protocols of action should be established with specific instructions.

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References

- Flores Pérez P, Luis Huertas AL, Villalobos Pinto E, Pérez Martín MA, Souto Romero H, de Mingo Micena L. Complicaciones gastrointestinales graves tras la ingesta de un juguete magnético. *An Pediatr (Barc)*. 2013;78:62-3.
- Higo R, Matsumoto Y, Ichimura K, Kaga K. Foreign bodies in the aerodigestive tract in pediatric patients. *Auris Nasus Larynx*. 2003;30:397-401.
- Encinas JL, García Bermejo C, Andrés AM, Burgos L, Hernández P, Tovar JA. Perforaciones intestinales múltiples por ingesta de piezas imantadas de un juguete. *An Pediatr (Barc)*. 2005;63:457-68.
- Michaud L, Mougnot JF, Faure C, Olives JP, Chouraqui JP, Codoner P, et al. Ingestion de corps étrangers chez l'enfant. Recommandations du Groupe francophone d'hépatologie gastroentérologie et nutrition pédiatriques. *Archives de Pédiatrie*. 2009;16:54-61.
- Tallón Aguilar L, Bernal Moreno DA, López Po-

rras M, Marín Gómez LM, Pareja Ciuró F. Cuerpo extraño como causa infrecuente de absceso hepático. *Rev Esp Enferm Dig.* 2011;103:335-6.

6 Birk M, Bauerfeind P, Deprez PH, Häfner M, Hartmann D, Hassan C, et al. Removal of foreign bodies in the upper gastrointestinal tract in adults: European Society of Gastrointestinal Endoscopy (ESGE) Clinical Guideline. *Endoscopy.* 2016; Feb (Epub).

7 ASGE Standards of Practice Committee, Ikenberry SO, Jue TL, Anderson MA, Appalaneni V, Banerjee S et al. Management of ingested foreign bodies and food impactions. *Gastrointest Endosc.* 2011;73:1085-91.

Work-related stress and emotional intelligence in a 112 emergency response service staff

Estrés laboral e inteligencia emocional en el servicio de urgencias y emergencias 112

To the editor:

Psychosocial risks do not receive the attention they deserve; they can affect the quality of care and the health of the worker in the heterogeneous group of emergency service 112 staff. These professionals are subject to great pressure of care due to the high level of responsibility they bear when providing the first response to serious situations, impacting on physical and emotional health¹. Among the psychosocial risks considered to be the most important, because they are associated with health problems, is work stress². However, the variable emotional intelligence seems to have a protective effect against stress situations and contributes to better individual and organizational performance³.

Hemos realizado un estudio exploratorio de corte transversal para evaluar conjuntamente riesgos psicosociales y factores de protección. Se analizó la capacidad predictiva de variables sociodemográficas, laborales y la inteligencia emocional para explicar el estrés laboral. Participaron todos los profesionales del 112 Extremadura (Tabla 1). Un total de 91 sujetos (52 hombres y 39 mujeres), con una media de edad 45 (8,2) años. La antigüedad media en el puesto es de 9,8 años (4,6), el 52,7% son funcionarios laborales. En relación a la jornada laboral, el 39,6% trabaja 35 horas semanales. Se han empleado la Encuesta para Diagnosticar el Estrés Laboral (E.D.E)⁴ y la Trait Meta-Mood Scale-24 (TMMS-24)⁵ para valorar la inteligencia emocional.

We conducted an exploratory cross-sectional study to jointly assess psychosocial risks and protective factors. We analyzed the predictive capacity of sociodemographic, work and emotional in-

Table 1. Number of participants by sectors or occupational position in 112 emergency service

Job description/ Sectors	Number of participants
Head of section	8
Nurse	5
Operator	35
Doctor	8
Civil Guard	6
National Police	5
Local Police	6
Firefighter	8
Forestry Officer	5
Red Cross Staff	5
Total	91

telligence variables to explain work stress. All professionals from Extremadura emergency services 112 participated (Table 1), involving a total of 91 subjects (52 men and 39 women), mean age 45 (8.2) years. The average work experience in the position was 9.8 years (4.6), and 52.7% were state-employed officials. In relation to the working day, 39.6% worked 35 hours a week. The Work Stress Diagnosis Survey (SDS)⁴ and the Trait Meta-Mood Scale-24 (TMMS-24)⁵ were used to assess emotional intelligence.

The data show that 25.3% scored above the 75th percentile (n = 24) corresponding to high levels of stress, and that approximately half the participants perceived average levels of stress, which coincides with the findings of some work done in EDs^{6,7} and in out-of-hospital emergency services⁸. The two main sources of stress were: "I lack adequate opportunities to progress in this organization" (M = 3.44) and "I take measures or decisions that affect the safety or welfare of others" (M = 3.49). Significant relationships were found between work-stress and employment status (operators and nurses had the highest levels, and the lowest were civilian guards and national police), and work situation and emotional intelligence (state-employed officials presented the highest average emotional intelligence). Most (75%) of the variance of stress was explained by sociodemographic and work variables. Only "hours of work per week" appeared as a predictor of stress. When comparing the study group with professionals of hospital EDs, in contrast to other studies⁶, we did not detect a greater degree of perceived stress according to years of experience. Therefore, it was the work and sociodemographic conditions which predicted stress and not emotional intelligence.

We have not found any studies that relate the prevalence of stress and emotional intelligence in emergency 112 professionals that allow us to establish a comparison. It would be interesting to evaluate centres of identical characteristics. Sensitizing managers and professionals is one of the first preventive measures. Occupa-

tional health and well-being are part of an adequate work environment, with fair working conditions and where workers can carry out their activities with dignity⁹, and this must be our maximum aspiration.

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References

- González-Cabrera J, Fernández-Prada M, Molina R, Trujillo H, Peinado JM. Diseño y validación del cuestionario breve de seguridad del paciente para los servicios de urgencias: el visión del paciente. *Emergencias.* 2014;26:275-80.
- González J, Fernández M, Molina R, Blázquez A, Guillén J, Peinado JM. Riesgos psicosocial en el trabajo, estrés autopercebido y cortisol en saliva en una muestra de urólogos de Granada. *Emergencias.* 2012;24:101-6.
- Hopkins M, Bilimoria D. Social and emotional predicting success for male and female executives. *J Manage Stud.* 2008;27:13-35.
- Ivancevich JM, Matteson MT. Stress Diagnostic Survey: Comments and Psycho metric Properties of a Multidimensional Self-report Inventory. Houston: TX Associates; 1976.
- Fernández-Berrocal P, Extremera N, Ramos N. Validity and reliability of the Spanish modified version of the Trait Meta-Mood Scale. *Psychol Rep.* 2004;94(3Pt 1):751-5.
- Miret C, Martínez Larrea A. The professional in emergency care: aggressiveness and burnout. *An Sist Sanit Navar.* 2010;33(Supl 1):193-201.
- López-Araújo B1, Segovia AO, Peiró JM. The job involvement modulating role in the relationship between stress and job satisfaction. *Psicotema.* 2007;19:81-7.
- Bernaldo de Quirós-Aragón M, Labrador-Encinas FJ. Evaluación del estrés laboral y burnout en los servicios de urgencia extrahospitalaria. *Int J Clin Health Psychol.* 2007;7:23-335.
- Busca P, Inchaurrea E, Illaramendi A, Urbina A, González L, Miró O. Evolución de la actividad asistencial de una plantilla estable de médicos adjuntos de urgencias a lo largo del tiempo. *Emergencias.* 2015;27:143-9.