

Chest Pain Units. A Cardiologist's Plea for its Urgent Implementation

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The emergency services of Spain attend patients with pathologies of widely varying type and severity. The same can be said of the patients who visit the emergency services with a condition dominated by chest pain. Between 5% and 20% of patients who visit the emergency services do so for chest pain. This means that the emergency services of the average hospital receive 20 to 30 patients with chest pain every day. Nevertheless, the percentage of patients with acute coronary syndrome is small.¹ However, both emergency care physicians and cardiologists have been instructed in the need to exclude this pathology in all such patients. In many cases this involves an excessive number of diagnoses of acute ischemic heart disease that are not confirmed later, thus originating a large number of unnecessary admissions. On the other hand, it is the routine practice of emergency services to admit these patients whenever there is a minimum doubt about the possibility that underlying coronary pathology may be present, leaving the final responsibility for confirming the diagnosis to hospital specialists.

Incorrect diagnoses of acute coronary syndromes when this is really the cause of chest pain is less frequent, although more serious; it is estimated that this error occurs in 2% to 10% of cases.²

Therefore, one of the main targets for both emergency care physicians and cardiologists is to avoid sending patients with these pathologies home as a result of an erroneous diagnosis.

If, as mentioned at the beginning of this editorial, we contemplate the frequency of chest pain as the reason for visiting the emergency services and the

pressure on physicians of caring for such patients, we must conclude that chest pain deserves a specific and high-priority protocol for care in the emergency services.

This is why chest pain units (CPU) were created in the United States in the 1980s and are now reaching Spain after a considerable delay. The Spanish Society of Cardiology, through its Section of Ischemic Heart Disease and Coronary Units, has recently established guidelines for the operation and organization of CPUs in anticipation of their creation in Spanish hospitals.¹ At present, few units are operating, although a quick and massive expansion is expected.

Proof of this is that in the last 12 months five articles have been published in the REVISTA ESPAÑOLA DE CARDIOLOGÍA in relation to CPUs, three of them preparatory or basic^{1,3,4} and two describing the practical implementation of these units.^{5,6} These articles appear in this issue.

From both articles, it can be emphasized with satisfaction that enthusiasm and methodological and scientific rigor are much more effective instruments than increasing the number of personnel, budget, or publicity in order to achieve the objectives proposed in these cases. It is remarkable that few CPUs operating in Spain have been created by official or institutional initiatives. Their existence can be attributed to the impetus, effort, and sacrifices of professionals working with conviction and dedication. This is undoubtedly the case of the two CPUs whose scientific results we discuss in this issue, the CPUs of the Virgen de Valme University Hospital of Seville and the University Hospital of Valencia. We hope that their example will be followed by other hospitals.

Considering simple not as the synonym of easy but, instead, the opposite of complicated, we can say that the protocols and methodology used in these two studies are practical, precise, and simple, and can be extrapolated to most emergency services in Spanish hospitals. The work of Pastor et al⁵ offers conclusions that are no less interesting despite being expected. This is the first demonstration in Spain that a protocol

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of rapid care for chest pain in emergency services is safe, feasible, and economical. Almost exactly the same can be said about the work of Sanchis et al.⁶ In this case, the results are confined to the early exercise stress test and confirm its usefulness as a method for risk stratification, its innocuousness in trained hands, and its high negative predictive value. As in the previous case, the methodology is within reach and applicable in most Spanish hospitals.

As Pastor et al⁵ state so well in their study, putting a CPU into operation is not structurally complex, nor does it require new funding or sophisticated technology. What is fundamental is redefining circuits of care using protocols that allow discriminating in the shortest possible time between low-risk patients who do not require hospitalization and avoiding the discharge from the hospital of high-risk patients.

We are sure that the results of these studies will help to convince health-care authorities to promote the creation of CPUs throughout Spain (what is more, at some moments it would seem that the purpose of the articles discussed is precisely that). Facilities, personnel, and sophisticated equipment are not lacking. CPUs are located in emergency services, staffed by cardiology and emergency care personnel, and require simple and inexpensive equipment. What

is needed is: *a*) a well defined protocol, which the Spanish Society of Cardiology has already published;¹ *b*) better organization and use of existing resources; *c*) good coordination between the cardiology and emergency services, as well as effective hierarchical organization, and *d*) willpower, which it is hoped will be nurtured by pioneering and successful experiences of the Valme hospital and Valencia University Hospital.

REFERENCES

1. Bayón J, Alegría E, Bosch X, Cabadés A, Iglesias I, Jiménez-Nácher JJ, et al. Unidades de dolor torácico. Organización y protocolo para el diagnóstico de los síndromes coronarios agudos. *Rev Esp Cardiol* 2002;55:143-54.
2. Storrow AB, Gibler WB. Chest pain centers: diagnosis of acute coronary syndromes. *Ann Emerg Med* 2000;35:449-61.
3. Sanz G. Unidades de dolor torácico. *Rev Esp Cardiol* 2001;1(Supl B):67B-75B.
4. Bassan R, Gibler WB. Unidades de dolor torácico: estado actual y manejo de los pacientes con dolor torácico en los servicios de urgencias. *Rev Esp Cardiol* 2001;54:1103-9.
5. Pastor LF, Pavón R, Reina M, Caparrós J, Mora J. Unidad de dolor torácico: seguimiento a un año. *Rev Esp Cardiol* 2002;55:1021-7.
6. Sanchis J, Bodí V, Llácer A, Núñez J, Ferrero JA, Chorro FJ. Valor de la prueba de esfuerzo precoz en un protocolo de unidad de dolor torácico. *Rev Esp Cardiol* 2002;55:1089-92.