Actas Dermosifiliogr. 2011;**102(3)**:193–198

ACTAS
Dermo-Sifiliográficas

Full English text available at
www.elsevier.es/ad

ORIGINAL ARTICLE

Referrals to Dermatology: Proportion of Banal Disorders

M.L. Martínez-Martínez,* L.J. Pérez-García, E. Escario-Travesedo, M. Rodríguez-Vázquez, J.M. Azaña-Defez, M.C. Martín de Hijas Santos

Servicio de Dermatología, Complejo Hospitalario Universitario de Albacete, Albacete, Spain

Manuscript received April 11, 2010; accepted for publication October 12, 2010

KEYWORDS
Referrals;
Primary care;
Dermatology;
Cost

Abstract
Background and objective: Skin diseases account for a large number of consultations in primary care. The objective of this study was to determine the characteristics and cost of referrals from primary care to a dermatology clinic.
Material and methods: Descriptive cross-sectional study of referrals from a primary care health center to a dermatology clinic. The dermatology clinic was situated in the same health center and was attended by a dermatologist from Complejo Hospitalario Universitario in Albacete, Spain. The study was performed on 10 days selected at random between April 21, 2009, and June 26, 2009. The data gathered included age, sex, use of cryotherapy, and diagnostic group. Patients were divided into 4 diagnostic groups: A) benign degenerative disease or trivial disorders whose treatment may not merit involvement of the national health service; B) diseases resolved with a single dermatology consultation at the health center; C) diseases requiring evaluation in hospital-based dermatology outpatients; and D) diseases referred for surgical treatment.
Results: Data were gathered on 257 patients with a mean age of 41.18 years and there was a larger proportion of female patients. The majority of patients were in diagnostic group B (53.7%), followed by groups A (19.1%), C (19.1%), and D (8.2%). The total estimated cost of these 257 visits was €29 750.32, of which €5672.24 was for trivial disorders.
Conclusions: The current high prevalence of trivial disorders in the caseload of dermatology clinics makes it necessary to control referrals from primary care more strictly.

*Corresponding author.
E-mail address: mlmartinezm@sescam.jccm.es (M.L. Martínez-Martínez).

PALABRAS CLAVE
Demanda derivada;
Atención Primaria;
Dermatología;
Coste

Demanda derivada a Dermatología: peso de la patología banal

Resumen

Introducción: Las enfermedades dermatológicas ocupan un lugar importante en las consultas de Atención Primaria (AP). Nuestro objetivo fue conocer las características y costes de la demanda derivada a Dermatología desde AP.

Material y método: Estudio descriptivo transversal de los pacientes remitidos a Dermatología por un centro de salud de AP, realizado en una consulta de Dermatología ubicada en el propio centro de salud y atendida por un dermatólogo del Complejo Hospitalario Universitario de Albacete durante 10 días aleatorios desde el 21 de abril de 2009 al 26 de junio de 2009. Se recogieron los datos de edad, sexo, aplicación o no de crioterapia y grupo diagnóstico. En función de esta última variable se dividieron los pacientes en 4 categorías: A) patología degenerativa benigna o entidades banales, cuyo tratamiento podría no ser apropiado en el Sistema Nacional de Salud; B) enfermedades resueltas en una visita única realizada por el dermatólogo en el centro de AP; C) enfermedades derivadas a la consulta externa de Dermatología; y D) entidades que precisan tratamiento quirúrgico y son derivadas a quirófano.

Resultados: Se recogieron los datos de 257 pacientes, con una media de edad de 41,18 años y ligero predominio femenino. El grupo diagnóstico más frecuente fue el B (53,7%), seguido del grupo A (19,1%), C (19,1%) y D (8,2%). El coste total estimado de las 257 consultas fue de 29.750,32 euros, de los que 5.672,24 euros representarían el gasto en entidades cutáneas banales.

Conclusiones: La actual saturación de las consultas de Dermatología por motivos banales hace necesario un mayor control de la demanda derivada desde AP.

Introduction

Skin diseases account for between 4.85% and 22.5% of consultations in primary care.[1-8] The growing number of consultations related to skin disorders means that appointments with dermatologists are currently in high demand,[9] with a referral rate from primary care of 10.1% to 10.9%.[10,11]

Together with increases in the number of skin problems, there has been an increase in consultations for trivial reasons that may not involve a genuine disease.

The aim of this study was to determine the characteristics and costs of referrals to our hospital from primary care for the assessment and treatment of skin disorders.

Material and Methods

A descriptive cross-sectional study was undertaken in a population attended by a dermatologist from the Complejo Hospitalario Universitario de Albacete, Spain, who was sent on a provisional basis to a primary care center belonging to the same health care area. The study was conducted on 10 days selected at random between April 21, 2009 and June 26, 2009. The data was collected by the visiting dermatologist who assessed all the patients who, in the days leading up to the dermatologist's visit, had been referred to a dermatologist by their primary care physician. The primary care physician was not aware of the characteristics and aims of the study.

The following information was recorded: age, sex, use of cryotherapy and diagnostic group. The patients were divided into 4 diagnostic groups:

1. Group A: benign degenerative disease or trivial lesions without medical consequences whose treatment may not merit the involvement of the National Health Service.

   This group was further divided into 4 subgroups based on the 3 most frequent diagnoses: acrochordon, intradermal nevus, and seborrheic keratosis, together with a fourth group that comprised the least prevalent entities (venous lake, ephelides, cherry angioma, etc).
2. Group B: diseases requiring diagnosis and treatment, resolved with a single visit to the dermatologist at the primary care center.

   This group would include diseases such as actinic keratosis resolved with cryotherapy or seborrheic dermatitis resolved with topical treatment.
3. Group C: diseases requiring treatment and follow-up, for which patients are referred to dermatology outpatients.

   This group would include diseases requiring follow-up, such as cutaneous lymphoma.
4. Group D: diseases requiring surgical treatment, for which patients are referred to surgery.

   This group would include basal cell carcinomas or adnexal tumors.

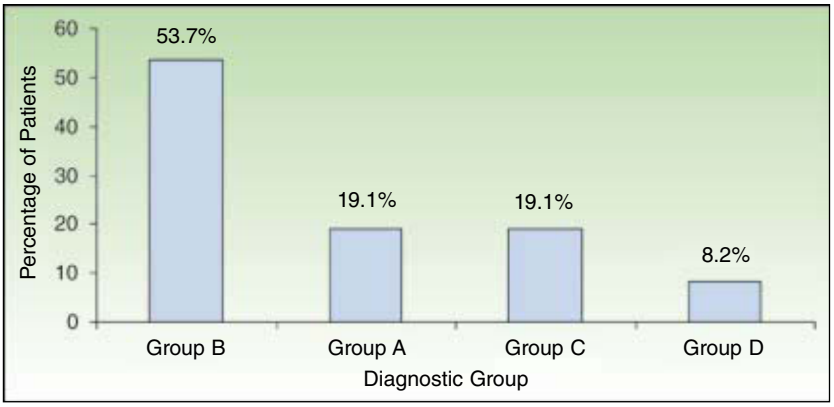

Figure 1 Percentage of patients in each diagnostic group. Group A: Benign degenerative disease or trivial lesions whose treatment may not merit the involvement of the National Health Service. Group B: Diseases resolved with a single visit at the primary care center. Group C: Diseases for which patients are referred to dermatology outpatients. Group D: Diseases requiring surgical treatment, for which patients are referred to surgery.

During the study period no patient was referred to other specialties.

Data obtained under the collection protocol were digitally stored using the SPSS software package.

Resolution 17/02/2009 on costs applying to health centers in Castilla-La Mancha[12] published in the Regional Official Bulletin, specifies a cost of 115.76 Euros for the first outpatient consultation for the category to which Hospital General de Albacete belongs, including within this cost any diagnosis and treatment performed within 15 days following the initial visit.

A report requested from our hospital indicated 20 255 first visits to the dermatology unit during 2009.

Results

In total, 257 patients were assessed during the study period. Mean (SD) age was 41.18 (23.43) years (median, 39 years). Of these patients, 53% were women (95% confidence interval [CI], 46.6%-59.2%) and 47% were men (95% CI, 40.8%-53.4%).

The most common diagnostic group (Figure 1) was Group B (diseases requiring diagnosis and treatment, resolved with a single visit to the dermatologist at the primary care center) (53.7%; 95% CI, 47.4%-59.9%). This was followed by Group A (benign degenerative disease or trivial lesions without medical consequences whose treatment may not merit the involvement of the National Health Service) and Group C (diseases requiring treatment and follow-up, for which patients are referred to dermatology outpatients) with the same percentage (19.1%; 95% CI, 14.5%-24.4%). Group D (diseases requiring surgical treatment, for which patients are referred to surgery) was the least common diagnostic group (8.2%; 95% CI: 5.1%-12.2%).

There were 49 patients in Group A (benign degenerative disease or trivial lesions), with no significant differences between sexes (mean age, 49.24 [19.77] years); the remaining patients had a mean age of 39.25 (23.86) years. The most common diagnosis in Group A (Figure 2) was acrochordon (45.42%; 95% CI, 29.8%-61.3%) followed by seborrheic keratosis (42.9%; 95% CI, 27.7%-59.0%).

Cryotherapy (Figure 3) was used in 29.6% of the patients (95% CI, 24.1%-35.6%); of these patients, 40 were in Group B (diseases resolved at first visit) and 34 were in Group A (benign degenerative disease or trivial lesions). There were only 2 patients in Group C (diseases requiring referral to dermatology outpatients). In total, cryotherapy was used in 69.4% of the patients with degenerative disease or trivial lesions (Group A; 95% CI: 54.6%-81:7%) and in 20.2% of the remaining patients (Groups B, C and D; 95% CI, 15.0%-26.3%).

The cost of the 257 consultations during the study period was 29 750.32 Euros. Of these 257 patients, 19.1% were in Group A (degenerative disease or trivial lesions) involving a total cost of 5672.24 Euros during the study period (Figure 4). If we extrapolate these data to the population treated at the dermatology department of Hospital General de Albacete during 2009 and we assume

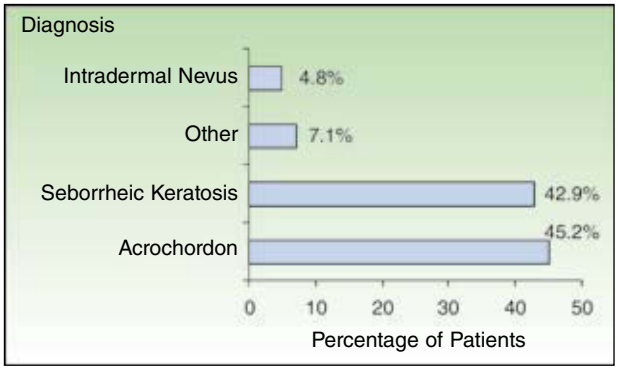

Figure 2 More common diagnoses in Group A (benign degenerative disease or trivial lesions without medical consequences whose treatment may not merit the involvement of the National Health Service). Percentages of all benign degenerative disease or trivial lesions.

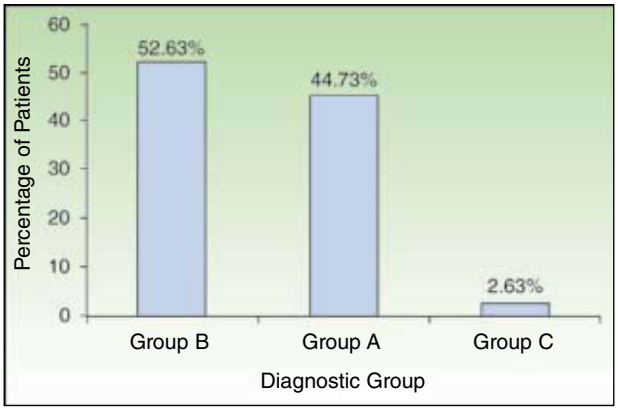

Figure 3 Percentage of patients who received cryotherapy according to diagnostic group. Group A: Benign degenerative disease or trivial lesions whose treatment may not merit the involvement of the National Health Service. Group B: Diseases resolved with a single visit at the primary care center. Group C: Diseases for which patients are referred to dermatology outpatients.

3869 new consultations for benign degenerative disease or trivial disorders, then the theoretical cost of these procedures within this period would be 447 841.29 Euros. These data should be considered in the context of a total cost of 2 344 718.80 Euros corresponding to the 20 255 new consultations conducted during that year.

Discussion

There are few studies on referrals to dermatology units and their associated costs.[13,14] A large proportion of the

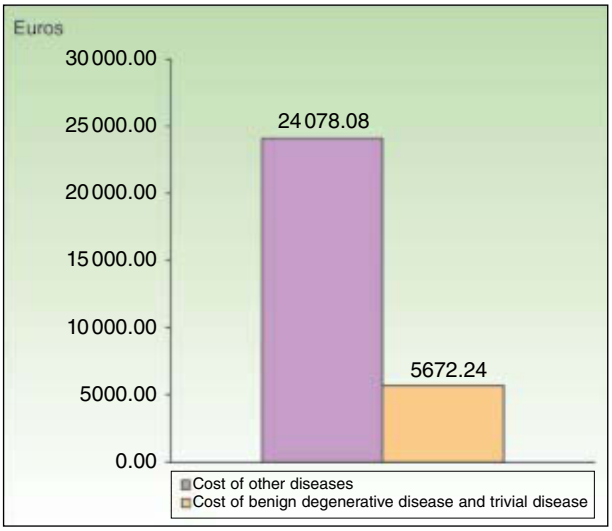

Figure 4 Cost of the 257 patients who formed the study group, broken down by the presence (Group A, 49 patients) or absence (Groups B, C and D, 208 patients) of benign disease or trivial lesions.

increasing number of referrals is due to concerns over personal appearance. This situation has been observed in our units and has already been discussed in the literature.[15]

We draw attention to 2 points in our study: the high number of cases resolved at first consultation and the high percentage of referrals for benign disease and trivial disorders.

The present study shows that more than half the cases were resolved at the primary care center (53.7%). Less than 20% of the patients were referred to dermatology outpatients for examination, diagnosis and follow-up, and even fewer were referred to surgery at first visit. In this sense, our provisional dermatology clinic at the primary care center performed a secondary care function by screening out the number of patients who would have otherwise used the outpatient services of the Complejo Hospitalario Universitario de Albacete.

Secondly, a high percentage of patients were referred for trivial skin conditions (Group A: 19.1%) that cannot strictly be considered diseases given their course, the absence of pathological impact, their association with the normal aging process and the cosmetic goals of treatment. We initially expected the group seeking cosmetic treatment to be formed by younger people. However, their mean age was 49.24 years, that is, 10 years older than patients referred for other skin conditions. This situation was associated with the most common diagnoses of seborrheic keratosis and acrochordons, which are more common in this age group. Cryotherapy was the most common treatment for this group of trivial disorders and was indicated in 69.4% of the patients. Cryotherapy alone was used in 20.2% of the remaining patients. The high number of benign skin diseases treated with cryotherapy reflects the diversity of criteria used by dermatologists to assess whether to treat these conditions or not.

Thus, we find ourselves dealing with a group of patients in their fifties referred for degenerative disease associated with aging and who form a high percentage of referrals to dermatology. These conditions cannot strictly be considered diseases and thus cannot be managed within the National Health Service. This is made clear in the Royal Decree of 1995 which states "procedures unrelated to accidents, disease or congenital malformation"[16] cannot be funded by the social security system. Nevertheless, in cases where doubt exists, the patient should be diagnosed by a dermatologist. It is at this point that a trivial benign skin disease whose treatment is not covered by the National Health Service may be identified. The decision to treat the condition remains at the discretion of the specialist.

Accepting this type of trivial reason for referral implies accepting the increased costs involved. Of the 257 patients studied, those with benign and trivial disease led to healthcare costs of 5672.24 Euros, which would translate into 447 841.29 Euros per year if these costs were extrapolated to all the referrals to our center. This waste of resources should raise serious questions regarding the importance of this issue. In an attempt to exemplify this situation, we compare the costs of

"benign and trivial disease" during 2009 to other costs. According to the Official Bulletin of Castilla-La Mancha regarding resolution 17/02/2009 on costs applying to its health centers,[12] the cost of mammography for breast cancer screening was 29.21 Euros per patient. Thus, the 447 841 Euros that were spent on benign and trivial disease during 2009 could have paid for 15 332 mammographies of this type, an enormous number that should cause some concern.

Regarding the limitations of our study, we would like to emphasize that the classification of the diagnostic groups into 4 categories was based on ad hoc assumptions on what constitutes a disease or not; these may vary according to the criteria applied by the specialist and are thus open to debate. Furthermore, the fact that the study was conducted between April and June could have modified the results because of the increased number of consultations typical to this period of the year.

According to the results, a large percentage of patients do not actually have a skin disease, but rather a cosmetic problem, and this leads to longer waiting lists of patients with real skin disease. Furthermore, this type of service cannot be funded by the social security system and thus may involve the specialist in legal action in the case of complications arising from treatment.

Possible solutions or measures to control the increase in referrals to dermatologists and the consequent overload for trivial and cosmetic problems would involve different strategies. Firstly, we emphasize the importance of providing continuous professional development in dermatology for primary care physicians, as referred to in other studies,[17] stressing the need to recognize and differentiate benign lesions or those that do not require treatment from lesions that require patient referral to a specialist. In this sense, it would be of interest to create diagnostic and therapeutic protocols[18] that would include skin diseases requiring referral to a specialist. On the other hand, the possibility of establishing a dermatology unit in a primary care center could be evaluated[19] in the attempt to reduce the large volume of patients referred to hospital dermatology department, as this leads to specialists becoming overloaded and reduces the amount of time dedicated to patients with serious skin diseases.

In conclusion, we would like draw attention to the current situation of secondary dermatology departments overloaded by patients with trivial disease and the consequent health costs of these types of visit and their treatment, while bearing in mind the impact they have on other patients with skin disease and on the specialists themselves.

Conflict of interest

The authors declare that they have no conflict of interest

Acknowledgments

We would like to thank Ana Margarita Gómez-Juárez Sango (specialist in preventive medicine, Complejo Hospitalario Universitario de Albacete) and Jesus D. López-Torres Hidalgo (specialist in family and community medicine, Albacete) for their invaluable help in the preparation of this article.

References

1. Fien S, Berman B, Magrane B. Skin disease in a primary care practice. Skinmed. 2005;4:350-3.
2. Lowell BA, Froelich CW, Federman DG, Kirsner RS. Dermatology in primary care: Prevalence and patient disposition. J Am Acad Dermatol. 2001;45:250-5.
3. Valcayo A, Vives R, Artal F, Eciolaza JM, Parra A, Bernués C, et al. Frecuentación de las consultas de atención primaria por motivos dermatológicos en las zonas básicas de salud de la comarca de Pamplona. ANALES Sis San Navarra. 1999;22(Supl 3):173-9.
4. Ortiz A, Herrera T, Pérez del Molino C, Piñeiro F, Perales ML, Muñoz P. Epidemiología de las enfermedades dermatológicas en Atención Primaria. Rev San Hig Pub. 1992;66:71-82.
5. Rea JN, Newhouse ML, Halil T. Skin disease in Lambeth. A community study of prevalence and use of medical care. Brit J Prev Soc Med. 1976;30:107-14.
6. Alcántara J, Sánchez de Toro JM, Saura J, Steele K. Primary dermatological care in general practice. J R Coll Gen Pract. 1984;34:22-3.
7. Lucas R. Estudio de los motivos de consulta en un medio rural. Aten Primaria. 1986;3:113-20.
8. Gudé F, Freijoo N, Pérez P, Soto A, Nercellas F, Fernández MC. Estudio de la demanda asistencial en el primer año de funcionamiento de un Centro de Salud. Aten Primaria. 1990; 7:76-7.
9. Mimbela MM, Foradada S. Análisis de la interrelación atención primaria-atención especializada en la derivación de pacientes. Aten Primaria. 1993;12:65-8.
10. Franquelo P, García D, Moya P, Lema J, Buendía J, Sáiz S. Tasa de derivación y factores asociados a la Calidad de la Hoja de Derivación en Atención Primaria. Rev Clín Med Fam. 2008;2: 199-205.
11. De Prado L, García L, Rodríguez F, Otero A. Evaluación de la demanda derivada en atención primaria. Aten Primaria. 2005;35:146-51.
12. Resolución de 17/02/2009, de la Dirección de Gerencia, sobre precios a aplicar por sus centros sanitarios a terceros obligados al pago o a los usuarios sin derecho a asistencia sanitaria. [2009/2872]. Diario Oficial de Castilla-La Mancha año XXVIII Núm. 43, 3 de marzo de 2009.
13. Richert L, Weber R, Doelfs P, Tscheulin D, Augustin M. Inpatient treatment costs of skin diseases. Diagnosis-based cost calculation in a university dermatology clinic. Hautarzt. 2004; 55:1047-51.
14. Macaya-Pascual A, López-Canós R, López-Piqueras S, Gómez S. Análisis de los motivos de consulta y de su coste en la asistencia dermatológica en un centro de Atención Primaria. Actas Dermosifiliogr. 2006;97:569-72.

15. Carrascosa JM. ¿Deben tratarse las lesiones cutáneas benignas y banales en el Sistema Público de Salud? Actas Dermosifiliogr. 2007;98:236-9.
16. Real Decreto 63/1995 sobre ordenación de prestaciones sanitarias, anexo III, epígrafe «Prestaciones que no son financiables con cargo a la Seguridad Social o fondos estatales destinados a la asistencia sanitaria».
17. Porta N, San Juan J, Grasa MP, Simal E, Ara M, Querol I. Estudio de concordancia diagnóstica en Dermatología entre Atención Primaria y Especializada en el área de salud de un hospital de referencia. Actas Dermosifiliogr. 2008;99: 207-12.
18. Borbujo J. Dermatología y Atención Primaria: una relación obligada. Actas Dermosifiliogr. 2007;98:159-63.
19. Carrascosa JM, Fuente MJ, Mangas C. Evaluación de la implementación de una cartera de servicios de Dermatología para Atención Primaria. Actas Dermosifiliogr. 2007;98: 506-12.