



Figure 1. Basophilic material (calcium) lining the wall of a small size vessel at the hypodermis.

often resistant to analgesia.² Histological confirmation is definitive. However it is associated to a high risk for superinfection and local dissemination of the ulcer, and some authors affirm that it should be reserved for those cases, in which the diagnosis is not clear.^{2,8}

The approach to these patients must be multidisciplinary: treatment of underlying conditions,^{1,6} control of the calcium-phosphorus product and of secondary hyperparathyroidism, to limit the use of calcium-based phosphorus chelating agents and of vitamin D^{6,10,11}, and hemodialysis with low calcium content in the dialysis fluid.⁶ Parathyroidectomy is indicated in cases of severe hyperparathyroidism.⁸ Necrotic tissue should be surgically removed and wide spectrum antibiotics should be administered. In recent studies the use of steroids,⁸ hyperbaric oxygen, diphosphonates, pentoxifylline or sterile larvae⁹ have shown promising results. In spite of an aggressive therapy the mortality is very high (60-80%), mainly due to sepsis.⁴

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M. Camba Caride, J. J. Bravo López, R. Blanco García, M.^a Borrajo Prol and A. Iglesias

Nephrology Department. Hospital of Orense. Correspondence: María Jesús Camba Caride. marisu75@hotmail.com. Complejo Hospitalario de Ourense. C/ Ramón Puga, 52-54. 32005 Ourense. España.

Is it necessary to measure anti-hepatitis B antibodies every six months instead of every twelve months in patients on hemodialysis?

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To the editor: All patients on hemodialysis with negative serology for hepatitis B virus must receive the vaccine.¹⁻⁴

In 1989, we initiated a vaccination protocol for patients on hemodialysis. A double dose of Engerix B[®] was intra-

muscularly administered in the deltoid muscle on months 0, 1, and 6. We annually measured the antibody levels and revaccinated with double doses those patients who did not respond or if the antibody levels were < 10 mIU/mL.

The anti-HBs antibodies were measured with a Microparticles Enzyme-immune analysis (MEIA). We defined seroconversion in the presence of an antibody titer > 10 mIU/mL.

The protocol was maintained until 2003. That year we changed to 4 double doses of the vaccine. The patients that were in the previous protocol of 1989 went on unchanged.

In this population the response rate is low, sometimes lower than 50%. Some patients maintain only the protection for short periods and it is recommended to annually determine the antibody levels. Some authors use other vaccination programs or administer co-adjuvants to improve the immunological response.⁵⁻⁸

Hepatitis B vaccination and antibodies control requires dedication, time, and follow-up from physicians and nurses. Epidemiological surveys present patients on dialysis not vaccinated or in which the antibody levels were not measured. In 1995, only 35% of the patients in the USA had received the vaccine.⁹⁻¹¹

According to the protocol of 1989, we determined in the first annual control serological markers and anti-HBs antibodies and afterwards we strictly proceeded to vaccination.

In 2004, we began to measure the levels of anti-HBs antibodies every six months. In 2007, we had 31 patients on the protocol of 1989, and antibody controls every 6 months and every 12 months. We could observe the following findings:

Six patients (19.35%) did not respond in any control either to the first vaccination or revaccinations.

The remaining 25 patients (80.65%) had in at least one control anti-HBs antibodies higher than 10 mIU/mL. Controls at six months were not different to annual controls in 17 of these patients (54.8%).

In 8 patients of the group of responders (table I), the controls performed at 6 months yielded information not obtained in the annual determination. In 4 of these patients (12.9%) the antibodies had already decreased below the protective range and the patients could

Table I. Results of the determination of anti-HBs antibodies in 8 patients with unexpected data at six months

Id	Sex	Age 1 st vac.	First vac. Year	Year 1		Year 2		Year 3		Year 4		Year 5		Year 6		Year 7		Year 8	
				Anti-Hbs		Anti-Hbs		Anti-Hbs		Anti-Hbs		Anti-Hbs		Anti-Hbs		Anti-Hbs		Anti-Hbs	
				12 mo.	6 mo.														
1	H	72	1999	5	0	18	5	23	8	4	29	5.8	17	8.7					
2	V	79	2000	5	0	2	5	97	4.2	60	7.4	63.4							
3	V	84	2001	0	0	45.7	24.7	2.4	12.7	1.5	14								
4	V	38	2002	40	11.5	7.6													
5	H	50	2002	0	0.7	16	2.1	52.5	146	5.1	3.1								
6	V	52	2002	0	3.3	5	0	23.8	4										
7	H	69	2002	0	0.2	25.4	2.4	182	139	6.1	4.7								
8	H	83	2002	0	1	14.6	0.1	1.2	0	4.4									

benefit from a revaccination 6 months before the annual control.

In 7 patients (22.5%), the controls at six months after revaccination showed protective levels of antibodies, but at the annual control they already were below 10 mIU/mL. These results led to consider the patients as non-responders. Moreover, 3 of the 7 patients never had protective antibody levels on annual controls. Had not the controls at 6 months be performed, they would have been considered as non-responders to vaccination.

Antibody controls every 6 months disclose some patients that respond to vaccination but would not be detected only on annual controls. Besides, they help identifying a group of patients in whom the antibody levels have already diminished below 10 mIU/mL and could benefit from a semestral vaccination protocol.

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P. Angelet, M. T. Compte, C. Gallego and C. Aguilar*

*Nephrology Unit of Tortosa. *Preventive Medicine and Public Health. Santa Creu Hospital.*

Correspondence: Pedro Angelet Figa. *nefro.htortosa@grupsagessa.com. Hospital Santa Creu. Passeig Mossèn Valls, 1. 43590 Tarragona. España.*

Hidden chronic kidney disease. A matter of decimals

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To the editor The SEN recommends estimating the glomerular filtration rate (GFR) by means of the MDRD-4 equa-

tion, using the serum creatinine levels (sCr) approximated to 2 decimals if the units are mg/dL.¹

We analyzed the impact on the prevalence of chronic renal disease (CRD) if one decimal is used instead of two decimals, as recommended. We calculated the systematic error and the dispersion (normal and absolute difference between the results of the MDRD-4 with the two approaches) and the inter-method variability by means of the relative difference (absolute difference divided by the mean of the GFR using the approaches multiplied by 100). We also analyzed the impact on the prevalence of hidden renal disease (HRD). We collected 8,967 consecutive blood analytical parameters from patients older than 18 years, requested from Primary Health Care. Through a personal code we identified 8,070 subjects (10.3% of the population of the area), with a mean age of 57.4 ± 18.8 years (range 18-107), of which 62.9% were women; and 40.7% were older than 65 years. If a patient had more than one determination done, we selected the lowest sCr value, to avoid the error attributed to acute renal failure.

By using sCr expressed with 2 decimals, we identified 640 people with GFR < 60 mL/min/1.73 m² (68.9% women), and the prevalence of CRD was 7.3%; whereas when the sCr value was expressed with one decimal, 699 people were identified (69.8% women) and the prevalence was 8%, which means an increment of 9%.

For the total population the mean bias was -0.3 ± 2.8 mL/min/1.73 m²,