

Case report

Implant migration in the axillary region: case study in Mali



Ousmane Sylla^{1, &}, Aly Ouattara², Zakaria Keita³

¹General Direction of Health and Public Hygiene, Bamako, Mali, ²Reference Health Center of Yanfolila, Regional Direction of Health Sikasso, Mali, ³Association la Rage en Afrique de l'Ouest, RIWA/REAO, Mali

[&]Corresponding author: Ousmane Sylla, Reference Health Center of Yanfolila, Regional Direction of Health Sikasso, Sikasso, Mali

Received: 06 Apr 2020 - Accepted: 18 May 2020 - Published: 27 May 2020

Domain: Health economy, Health information system management, Health system development

Keywords: Etonogestrel, contraceptive complications, rural areas Mali

Abstract

One of the complications of etonogestrel implant (Implanon NXT[®]) is it usually migration 2 cm away from its insertion point. The case presented here is of a rarity. Indeed, the rod has migrated up to 17cm from the insertion point and was localized in the left axillary region. After unsuccessful extraction of the etonogestrel implant in the first attempt, its extraction was possible and completed without complications with the second attempt.

Case report | Volume 3, Article 29, 27 May 2020 | 10.11604/pamj-cm.2020.3.29.22698

Available online at: <https://www.clinical-medicine.panafrican-med-journal.com/content/article/3/29/full>

© Ousmane Sylla et al PAMJ - Clinical Medicine (ISSN: 2707-2797). This is an Open Access article distributed under the terms of the Creative Commons Attribution International 4.0 License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Introduction

Etonogestrel implant is one of the methods that has the best theoretical and practical effectiveness (99.9%) in preventing unwanted pregnancy and birth spacing [1-3]. It is consisted mainly of 68mg of etonogestrel and 3% of barium sulphate that determine its localization (Radio-opacity). Etonogestrel implant acts by blocking the oocyte production and alters the cervical mucus, slowing the passage of sperm. Marketed in Mali under the name Implanon NXT[®], it is a flexible rod 4cm long by 2mm in diameter, not biodegradable. Its laying device ensures a superficial insertion (subcutaneous). Etonogestrel implant action is spread over 3 years and reversible. The installation can be carried out by qualified personnel [2,3], but also by women who are trained to help nurses (matrone).

Patient and observation

A 32-year-old patient came for medical examination on July 18, 2019 at the maternity unit of Cscm Central (Community Health Center); because she can no longer feel the rod of etonogestrel implant that she had inserted at the level of the left arm by a matrone on January 22, 2019. Several unsuccessful attempts were made by the practitioner who made had inserted the etonogestrel implant and two other colleagues to find the etonogestrel implant through palpitation medical check. Thus, ultrasound was requested. Ultrasound confirmed the presence of the implant in the axillary region and 17cm from the initial insertion point (Figure 1). Through clinical examination, we found that the patient has 7 children all alive (5 boys and 2 girls), blood pressure is at 115/70 mm of mercury, heart rate at 90 beats per minute, the body temperature is 37.5°C and it weighs 45kg. The rest of the clinical examination finds no particularity. While first attempt to remove the implant failed before ultrasound imaging, the second attempt of extraction of the rod was successfully completed after ultrasound imaging. Extraction of the implant

was done by an incision of 2cm under the skin and under local anesthesia at 17cm from the initial insertion point (Figure 1). These were conducted without incident and accident.

Discussion

In fact, it was a 32-year-old lady, who came to the center to know the location of it contraceptive implant rod following the impossibility of the providers to palpate the rod; the ultrasound has localized the rod in the left axillary region. It seems that this migration requires some time which is about ten months according to the clinical case study of Maroteix *et al.* 36 months as reported by Yibrah *et al.* and 7 months in our current case study [4,5]. Furthermore, Evans *et al.* observed two cases of migration in thin and nervous women. These women were physically active within a week of insertion. [6,7]. This confirmed our case that she is a housewife and she is the only one who takes care of her seven children, but she says that she did not engage in any intense activity during the six days of the insertion. However, other factors that would be involved in this migration are the insertion technique for Maroteix *et al.* Evans *et al.* confirmed our case study pointing out the service provider who is a matrone that is not a qualified staff [4,6]. Moreover, for Evans *et al.* the incision point used to withdraw Norplant, was immediately used for the insertion of Implanon, an element different from our case [6]. Evans *et al.* reported two cases of rod migration in cranial direction with the first case at 7.3cm and the second at 11.5cm from the insertion point. While Yibrah *et al.* Uwagbai and al found a migration distance at 12cm from the insertion point however our case is at 17cm, a greater distance than those found by other studies [5,6]. But, for some time, cases of implant migrations to the pulmonary artery have been reported [4,6,8]. In addition, most of these migrations are observed among women under the age of 35, in our case, she was 32 years old. Diego *et al.* Uwagbai *et al.* reported cases for 19 and 20 years old respectively, unlike Yibrah *et al.* who find 30 years old.

These results lead us to suspect age involvement in strand migration [5,7,9].

Conclusion

Finally, we were able to remove the rod during the second attempt after an Ultrasound which localized it in the axillary region; and perhaps because we did not have an advanced technical tray as interventional ultrasound, whereas the manufacturer recommends not attempting to remove an impalpable Implanon without ultrasonic guidance. Hence the urgent need to equip rural sanitary structures in advanced care technology such as the interventional radiology department [1,10,11].

Competing interests

The authors declare no competing interests.

Authors' contributions

We are all responsible for the work described in this document. We have all participated in at least one of the following activities: data design, acquisition, statistical analysis and interpretation, in addition to writing the manuscript and/or editing the manuscript for intellectually significant content. We have given our final approval of the version to be published and agree to report on all aspects of the work, ensuring that questions related to the accuracy or integrity of a portion of the work are appropriately investigated and resolved.

Figure

Figure 1: etonogestrel implant rod extraction in the left axillary region

References

1. Boulet P, Darmon D. Pose et retrait de l'implant contraceptif sous-cutané. Gestes techniques. 2016. **Google Scholar**
2. Ministère de la Santé et de l'hygiène Publique M. Politiques et normes des services de santé de la reproduction. Programme national de lutte contre le paludisme 2008.
3. World Health Organization, K4Health, éditeurs. Family planning: a global handbook for providers: evidence-based guidance developed through worldwide collaboration. [Geneva]? Baltimore: World Health Organization, Department of Reproductive Health and Research?; John Hopkins Bloomberg School of Public Health, Center for Communication programs, Knowledge for Health Project; 2011. 372. **Google Scholar**
4. Maroteix P, Dupeyrat J, Roupie E. Embolie pulmonaire par implant progestatif. Ann Fr Med Urgence. 2015. **Google Scholar**
5. Yibrah B, Girmay H, Wall LL. Axillary migration of an Implanon® contraceptive rod: case report. Open Access Journal of Contraception. 2014;5 49-51. **Google Scholar**

6. Alexandra Ohannessian, Alain Levy, Noémie Jaillant, YanTanguy Le Gac, Xavier D'Journo, Vincent Vidal *et al.* A French survey of contraceptive implant migration to the pulmonary artery. *Ann Fr Med Urgence*. 2019;100(4):255-257. **PubMed** | **Google Scholar**
7. Diego D, Tappy E, Carugno J. Axillary migration of Nexplanon®: Case report. *Contraception*. 2017; 95(2):218-220 **PubMed** | **Google Scholar**
8. D'Journo XB, Vidal V, Agostini A. Intravascular Pulmonary Migration of a Subdermal Contraceptive Implant. *Ann Thorac Surg*. *Ann Thorac Surg*. 2015;99(5):1828. **PubMed** | **Google Scholar**
9. Uwagbai ON, Wittich AC. Migration of a Subcutaneous Contraceptive Device. *The Journal of the American Osteopathic Association*. 2016 Sep 1;116(9):627. **PubMed** | **Google Scholar**
10. Ismail H, Mansour D, Singh M. Migration of Implanon®. *J Fam Plann Reprod Health Care*. 2006 Jul;32(3):157-9. **PubMed** | **Google Scholar**
11. Pickard S, Bacon L. Persistent vaginal bleeding in a patient with a broken Implanon®. *J Fam Plann Reprod Health Care*. 2002 Oct;28(4):207-8. **PubMed** | **Google Scholar**



Figure 1: etonogestrel implant rod extraction in the left axillary region