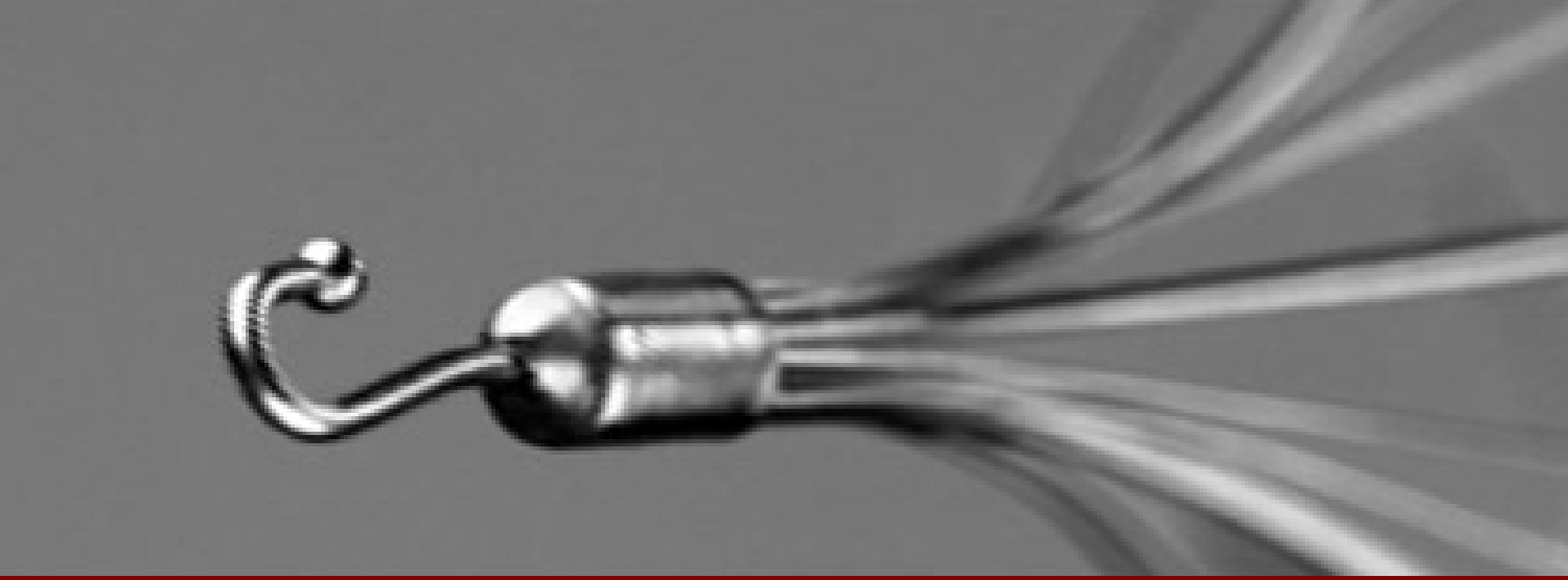


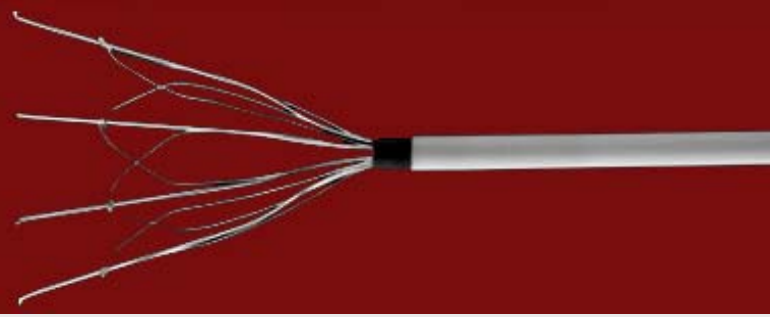
FILTRO DE VENA CAVA EN LA ETV

Marta González Sanz[1]
Carmen Suárez Fernández[1]
Carmen Fernández-Capitán[2]
Alejandro Martín Quirós[2]
and the RIETE investigators

1. Servicio de Medicina Interna. HOSPITAL UNIVERSITARIO DE LA PRINCESA. MADRID
2. Servicio de Medicina Interna. HOSPITAL UNIVERSITARIO DE LA PAZ. MADRID

VII Forum Multidisciplinar de la ETV
Sevilla, 12-13 Mayo 2011

HISTORICO



Inicio colocación vía percutánea 1984

Greenfield: nuevo FVCI 1973

Mobin-Uddin: filtro intravenoso en la VCI, altas tasas de oclusión 1967

1959 Moretz: clipaje externo de la VCI

1893 Bottini: interrupción de VCI

1868 Trousseau: proposición interrupción de la VCI

Trousseau A. Clinique médicale de l'Hôtel-Dieu de Paris. 3rd ed. Paris 1868. p. 652-995.
Becker DM, Arch Intern Med. 1992 Oct;152(10):1985-94.
Streiff MB. Blood. 2000 Jun 15;95(12):3669-77.
Moretz WH, Am Surg. 1959 Aug;25:617-26.
Mobin-Uddin K, Surg forum1967. p. 209-11.
Greenfield LJ, Surgery. 1973 Apr;73(4):599-606.
Tadavarthy SM, Radiology. 1984 May;151(2):525-6.

EVOLUCIÓN

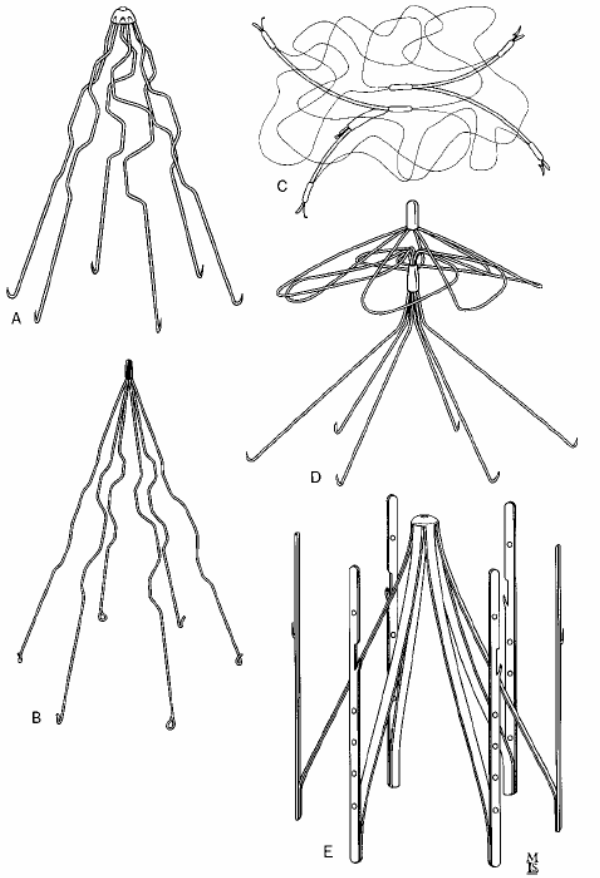


Figure 1. Diagram of the permanent vena caval filter models. (A) The stainless steel Greenfield filter. (B) The modified-hook titanium Greenfield filter. (C) The bird's nest filter (D) The Simon nitinol filter. (E) The Vena Tech filter.

Magnant JG, J Vasc Surg. 1992 Nov;16(5):701-6.
Yune HY. Radiology. 1989 Jul;172(1):15-6 ,
Streiff MB. Blood. 2000 Jun 15;95(12):3669-77.

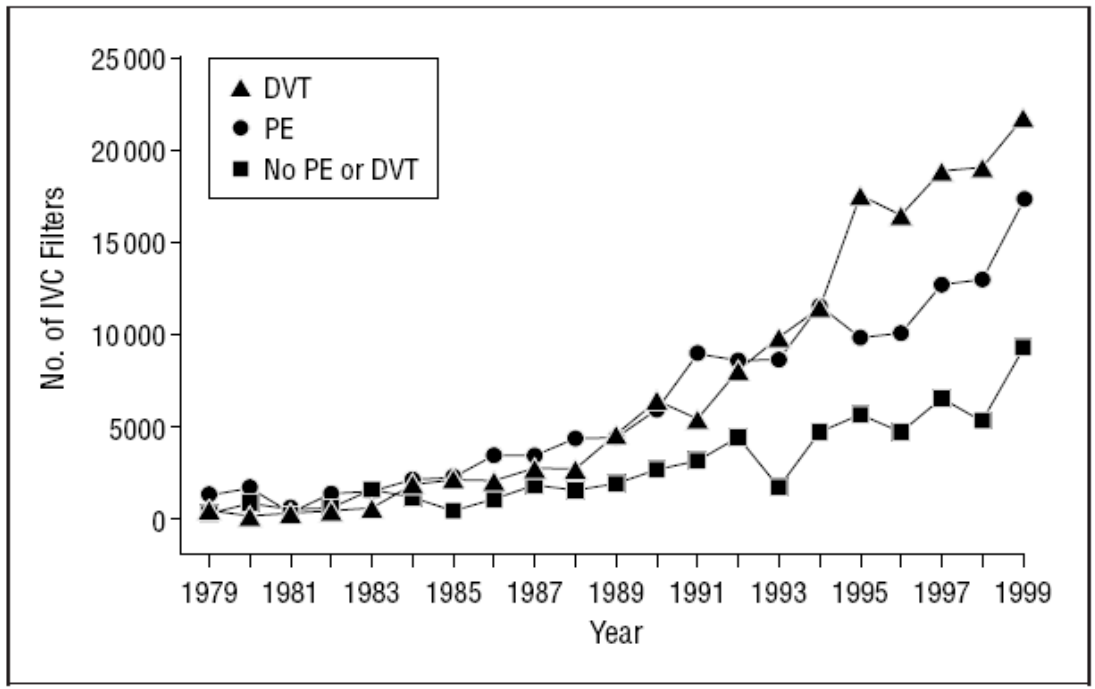
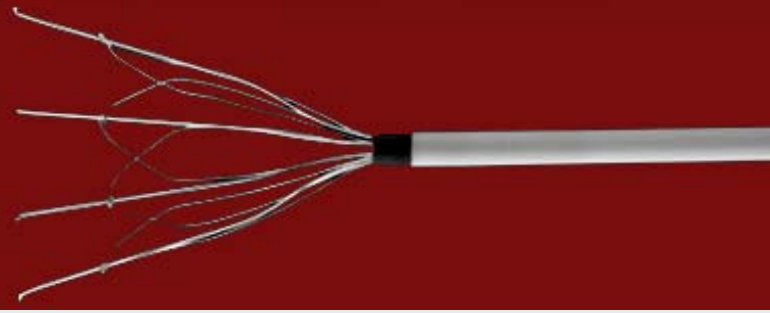


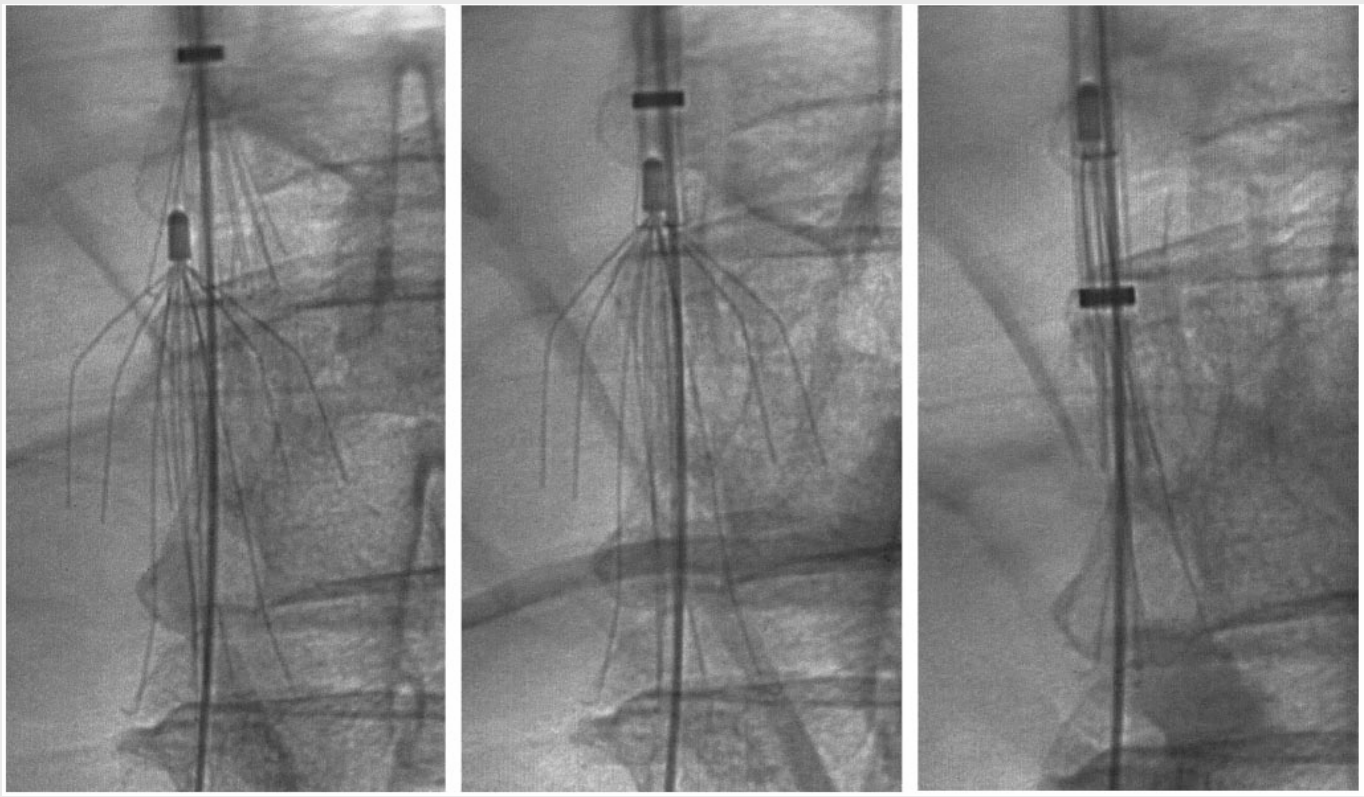
Figure 1. Number of inferior vena cava (IVC) filters inserted between 1979 and 1999 in patients with pulmonary embolism (PE), deep venous thrombosis (DVT) alone, and neither PE nor DVT.

Stein PD, Arch Intern Med. 2004 Jul 26;164(14):1541-5.

HISTORICO



2003 Aparición de los FVCI retirables



Asch MR. Radiology. 2002 Dec;225(3):835-44.
Morris CS, J Trauma. 2004 Jul;57(1):32-6.

EVIDENCIA CIENTIFICA

- Estudios heterogéneos:
  - Indicaciones
  - Modelos de FVCI
  - Tipos de FVCI
- Series de pocos pacientes en Europa
- Estudios en su mayoría retrospectivos
- Falta de seguimiento

Number of IVC Filter Publications (1975-2009)

CHEST®

Official publication of the American College of Chest Physicians

Medical Literature and Vena Cava Filters* : So Far So Weak

Philippe Girard, Jean-Baptiste Stern and Florence Parent

Chest 2002;122;963-967
DOI 10.1378/chest.122.3.963

Fig. 1. Number of IVC filter publications (1975-2009).[1-134]

Girard P, Chest 2002; 122(3): 963-7
Aziz F, Ann Vasc Surg 2010; 24: 966-979

ENSAYOS CLINICOS

The New England

Conclusiones:

- En pacientes con TVP y alto riesgo de TEP, el beneficio inicial del FVCI se ve contrarrestado por un aumento de recurrencia de TVP. No hubo diferencias en la mortalidad.

Circulation

JOURNAL OF THE AMERICAN HEART ASSOCIATION

American Heart Association®

Learn and Live℠

VOLUME 338

- A los 8 años, el grupo FVCI sigue reduciendo el riesgo de TEP, pero aumenta el de TVP y no hay diferencias en la mortalidad.

A CLINICAL

PULMONA

- Aunque el uso de FVCI puede ser beneficioso en pacientes de alto riesgo de TEP, no se recomienda su uso sistemático en la población con ETEV.

Eight-Year Follow-Up of Patients With Permanent Vena Cava Filters in the Prevention of Pulmonary Embolism: The PREPIC (Prévention du Risque d'Embolie Pulmonaire par Interruption Cave) Randomized Study

The PREPIC Study Group

Circulation. 2005;112:416-422; originally published online July 19, 2005;

DOI: 10.1161/CIRCULATIONAHA.104.512834

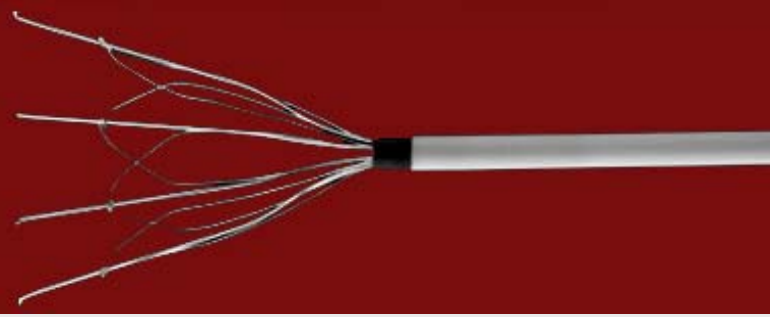
Circulation is published by the American Heart Association. 7272 Greenville Avenue, Dallas, TX 72514

 Print ISSN: 0009-7322. Online ISSN: 1524-4539

Decousus H, N Engl J Med. 1998 Feb 12;338(7):409-15.

PREPIC randomized study. Circulation. 2005 Jul 19;112(3):416-22.

ENSAYOS CLINICOS

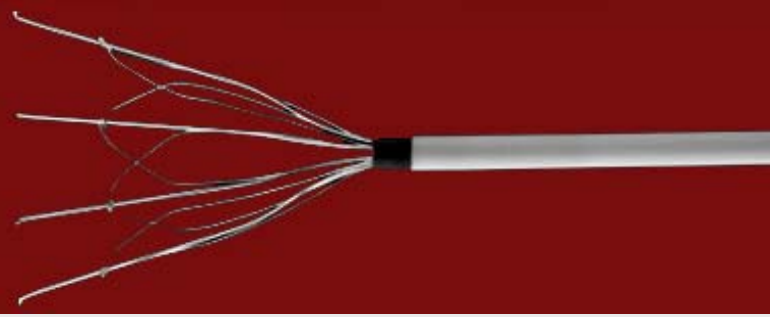


Críticas:

- Pacientes anticoagulados
- Pacientes con TVP y alto riesgo de TEP
- Exclusión de pacientes
- Reclutamiento de pacientes

Murphy TP, N Engl J Med. 1998 Jul 2;339(1):46-7; author reply 7-8.
Kinney TB. J Vasc Interv Radiol. 2003 Apr;14(4):425-40.

ENSAYOS CLINICOS



[Intervention Review]

Vena caval filters for the prevention of pulmonary embolism

Tim Young[1], Hangwi Tang[2], Rodney Hughes[3]

Authors' conclusions

- No recommendations can be drawn from the two studies. One study showed a reduction in PE rates but not mortality, but was subject to significant biases. The PREPIC study lacked statistical power to detect a reduction in PE over shorter and more clinically significant time periods. However, the trial demonstrated that permanent VCFs were associated with an increased risk of long term lower limb DVT.

- There is a paucity of VCFs outcome evidence when used within currently approved indications and a lack of trials on retrievable filters.

- Further trials are needed to assess vena caval filter safety and effectiveness.

Young T, Cochrane systematic reviews. 2010

GUIAS DE PRACTICA CLINICA

Reco … porting … for Vena Cava … nent and … llow-Up

Gui … se of Retri …

The …

bjh …

Guidel … a cava filte …

British Comm … Writing group: T. P. …

[1]Addenbrooke … eral Hospital, Edinburg … iversity School of Medicine, Baltimore, M …

Table 3
Categorical Indications for Filter Placement

1. Contraindication to anticoagulation (absolute or relative)
2. Complication of anticoagulation
   - Failure: objectively documented extension of existing deep vein thrombosis or new deep vein thrombosis or pulmonary embolism while therapeutically anticoagulated
   - Hemorrhage: major or minor
   - Thrombocytopenia
   - Skin necrosis
   - Drug reaction
   - Evidence/probability of poor compliance
3. Prophylaxis: no thromboembolic disease (90)
4. Prophylaxis with thromboembolism in addition to anticoagulation
5. Failure of previous device to prevent pulmonary embolism; central extension of thrombus through an existing filter or recurrent pulmonary embolism
6. In association with another procedure: thrombectomy, embolectomy, lytic therapy (91–94)

Table 2
Indications and Contraindications for All Vena Cava Filters

Absolute Indications (Proven VTE)
Recurrent VTE (acute or chronic) despite adequate anticoagulation
Contraindication to anticoagulation
Complication of anticoagulation
Inability to achieve/maintain therapeutic anticoagulation
Relative Indications (Proven VTE)
Iliocaval DVT
Large, free-floating proximal DVT
Difficulty establishing therapeutic anticoagulation
Massive PE treated with thrombolysis/thrombectomy
Chronic PE treated with thromboendarterectomy
Thrombolysis for iliocaval DVT
VTE with limited cardiopulmonary reserve
Recurrent PE with filter in place
Poor compliance with anticoagulant medications
High risk of complication of anticoagulation (eg, ataxia, frequent falls)
Prophylactic Indications (No VTE, primary prophylaxis not feasible*)
Trauma patient with high risk of VTE
Surgical procedure in patient at high risk of VTE
Medical condition with high risk of VTE
Contraindications to Filter Placement
No access route to the vena cava
No location available in vena cava for placement of filter

* Primary prophylaxis not feasible as a result of high bleeding risk, inability to monitor the patient for VTE, etc.

J Vasc Inte … Bagli … (6):590-5.

J Vasc Inter … Kaufman JA, J Vasc Interv Radiol. 2006 Mar;17(3):449-59.

GUIAS DE PRACTICA CLINICA

Antithro
Thromb

American
Based Cli

Clive Kearon, I
Samuel Goldha
and Anthony J.

1.13 Vena Caval Filters for the Initial Treatment
4.6 Vena Caval Filters for the Initial Treatment of PE

4.6.1. For most patients with PE, we recommend against the routine use of a vena caval filter in addition to anticoagulants (Grade 1A).

4.6.2. In patients with acute PE, if anticoagulant therapy is not possible because of risk of bleeding, we recommend placement of an IVC filter (Grade 1C).

4.6.3. For patients with acute PE who have an IVC filter inserted as an alternative to anticoagulation, we recommend that they should subsequently receive a conventional course of anticoagulant therapy if their risk of bleeding resolves (Grade 1C).

Kearon C, Chest. 2008 Jun;133(6 Suppl):454S-545S.

SANGRADO Y ANTICOAGULACIÓN

Cardiovasc Intervent Radiol (2008) 31:316–324
DOI 10.1007/s00270-007-9244-x

CLINICAL INVESTIGATION

The Need for Anticoagulation Following Inferior Vena Cava Filter Placement: Systematic Review

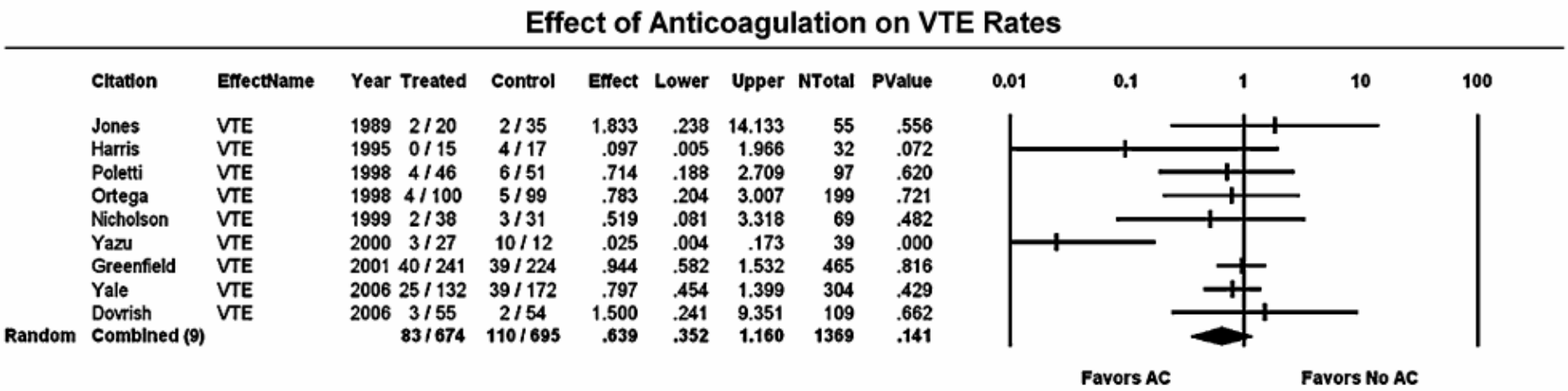


Fig. 1 Forest plot of the effect of anticoagulation on VTE rates for the nine studies included in the final analysis. A trend toward improved VTE rates was noted for patients receiving anticoagulation post-IVCF placement, but this failed to reach statistical significance ($p = 0.141$)

Ray CE, Cardiovasc Intervent Radiol. 2008 Mar-Apr;31(2):316-24.

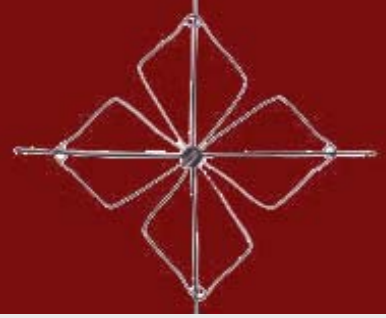
CONCLUSIONES

- Los pacientes a los que se les coloca un FVCI son clínicamente diferentes y de peor pronóstico que a los que no se les coloca

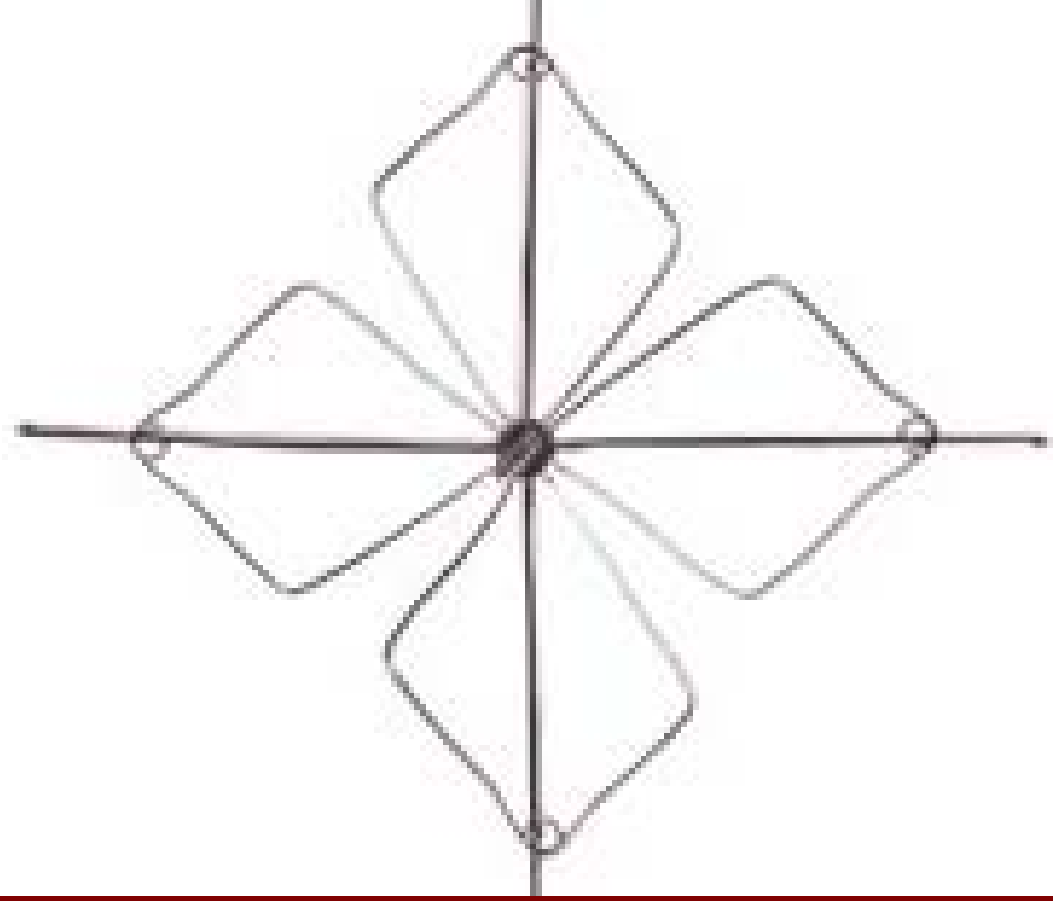
- La evidencia existente sobre los FVCI es heterogénea y de poca calidad

- Se necesitan estudios para intentar mejorar esta evidencia y por tanto nuestra práctica clínica

PREGUNTAS POR RESPONDER



- ¿Qué pacientes se benefician de la colocación de un FVCI?
- ¿Se debe anticoagular a los pacientes portadores de FVCI? ¿a todos?
- ¿Qué tipo de filtro es el más adecuado para cada paciente?



MUCHAS GRACIAS

VII Forum Multidisciplinar de la ETV
Sevilla, 12-13 Mayo 2011