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PUBLICAÇÃO CIENTÍFICA: MOTIVAÇÃO E FORMAÇÃO

09 de abril de 2016 | Auditório do Hospital **CUF** Porto

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Rui Vaz

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SECRETARIADO
INSCRIÇÕES E INFORMAÇÕES
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08h45 Abertura do secretariado

09h15 **Sessão de abertura e introdução**
João Massano | Rui Vaz

09h30 **Pesquisa bibliográfica – dicas práticas para o mundo contemporâneo**
Palestrante: Helena Donato
Moderação: José Lopes Lima

10h00 **Tipos de artigos científicos e sua estrutura**
Palestrante: Manuel Gonçalves Pinho
Moderação: Altamiro da Costa Pereira

10h30 **Como escrever um artigo científico**
Palestrante: Margarida Lima
Moderação: José Pereira Monteiro

11h00 Coffee break

11h30 **Escolher autores e revista para publicar; indexação e factores de impacto**
Palestrante: Adelino Leite Moreira
Moderação: Elsa Azevedo

12h00 **Investigação e publicação científica em Medicina Geral e Familiar**
Palestrante: Raquel Braga
Moderação: Luís Cavadas

12h30 **Novas tendências da divulgação científica: *ORCID*, *ResearchGate*, *LinkedIn*, outras redes sociais**
Palestrante: José Carona Carvalho
Moderação: José Castanheira

13h00 Almoço

14h30 **O trajecto do artigo submetido a uma revista científica e o papel do Editor-Chefe**
Palestrante: Rui Marinho
Moderação: João Massano

15h00 **Análise crítica de um artigo científico**
Palestrante: António Morais
Moderação: Paulo Pereira

15h30 **Educação médica e publicação científica**
Palestrante: Maria Amélia Ferreira
Moderação: Rui Vaz

16h00 **A visão dos alunos de medicina**
Palestrante: André Fernandes
Moderação: Rui Coelho

16h30 **Questões finais da audiência, discussão geral e conclusões**
Moderação: João Massano | André Fernandes | Rui Vaz

17h00 Encerramento

Análise crítica de um artigo científico

António Morais
Revista Portuguesa de Pneumologia

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Como avaliar um artigo

Relevância do objetivo da investigação ?
(questão formulada)

Mediante todos os dados publicados sobre determinado tema:

- Questão original ?
- Questão que questiona um conceito estabelecido?
- Questão que sugere adicionar algo a um conceito estabelecido ?
- Questão que pretende confirmar uma hipotese previamente colocada ?

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Como avaliar um artigo

ELSEVIER DOYMA

revista portuguesa de
PNEUMOLOGIA
portuguese journal of pulmonology
www.revportpneumol.org

How to write a scientific paper – and win the game scientists play!

How to write a scientific paper—Writing the methods section

How to write a scientific paper - Searching and Managing Biomedical information

To publish or perish: How to review a manuscript

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Como avaliar um artigo

Título

Abstract

Introdução

Metodos

Resultados

Discussão

Referencias

Tabelas

Suplementos

Como avaliar um artigo

Um bom título é curto, informativo e específico

Effective titles:

- identify the main issue of your paper
- begin with the subject of your paper
- are accurate, unambiguous, specific, and complete
- do not contain abbreviations
- attract readers

Peat J, Scientific Writing, 2002

Como avaliar um artigo

Abstracts

- ✓ objectivo e racional do estudo (porque é que o estudo foi feito)
- ✓ metodologia (como foi feito)
- ✓ resultados (o que é que foi descoberto)
- ✓ conclusões (o que é que representa)

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Como avaliar um artigo

THE CHROMOSOME NUMBER OF MAN

By *JOE HIN TJIO* and *ALBERT LEVAN*

ESTACION EXPERIMENTAL DE AULA DEI, ZARAGOZA, SPAIN, AND CANCER CHROMOSOME LABORATORY, INSTITUTE OF GENETICS, LUND, SWEDEN

Fig. 2. Four idiogram analyses of human embryonic lung fibroblasts grown *in vitro*. The chromosomes have been grouped in three classes: M (top row), S (bottom row), and T (in between, except in b, where T is at the end of the S row). Within each class the chromosomes have been roughly arranged in diminishing order of size. — ×2400.

Background. It is generally accepted that the chromosome number in humans is 48. But to count chromosomes has been difficult, as they clump and partially cover each other. In this study, cultured cells were treated with solutions that spread the chromosomes and made them easier to count.

Methods. Cultured cells from human embryonic lung were treated with both colchicine and hypotonic solution.

Results. Among 265 mitoses counted, all but 4 had a chromosome number of 46.

Conclusion. The results suggest that the chromosome number in humans is 46, not 48.

Tijo, JH Hereditas 1956

Como avaliar um artigo

A introdução tem dois objectivos:

- Captar o interesse do leitor para o tema do artigo
- Fornecer a informação necessária para entender o artigo

✓ Informação sobre o que é sabido
✓ O que não é conhecido
✓ O foco do trabalho

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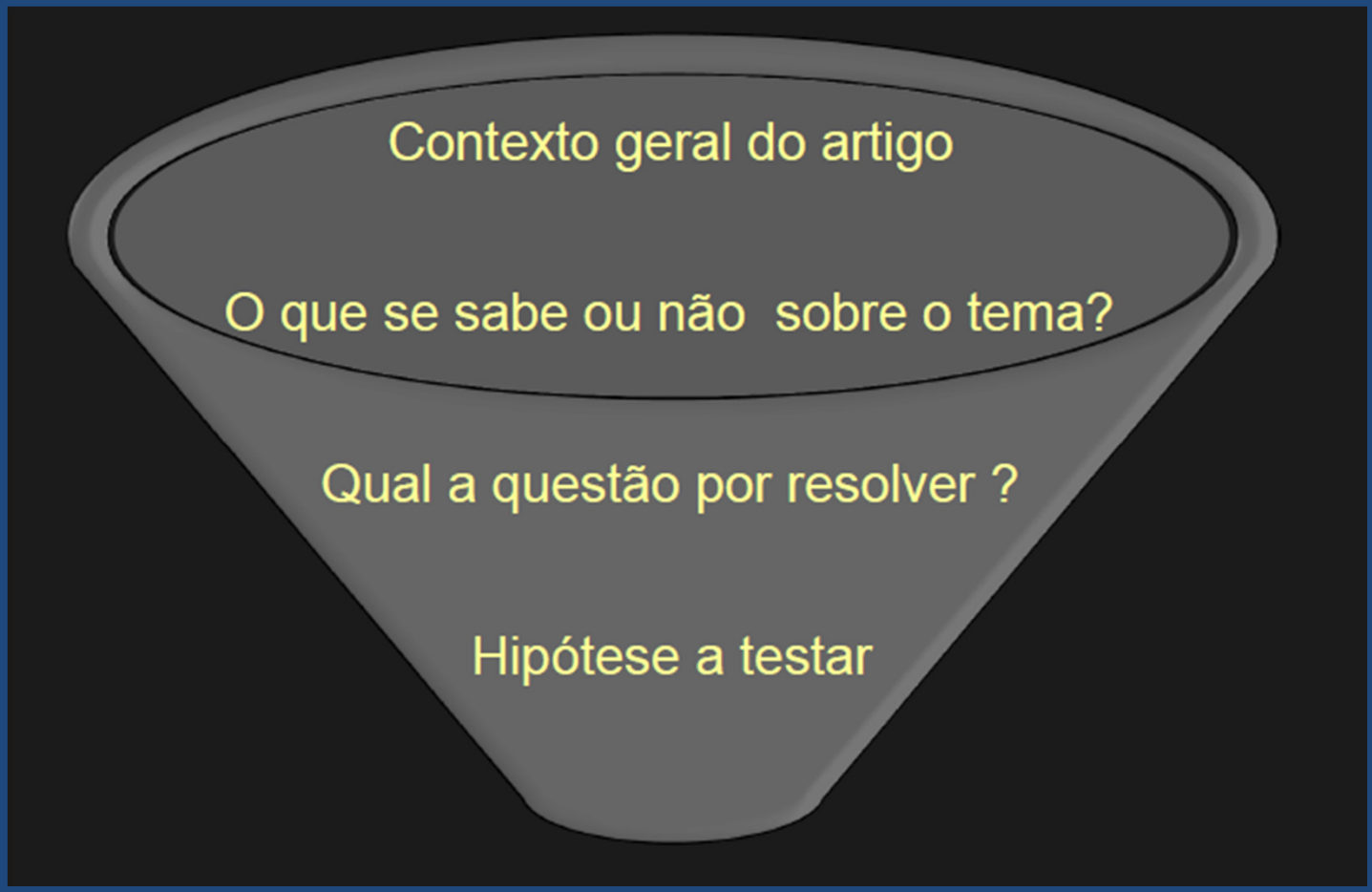
Como avaliar um artigo



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Como avaliar um artigo

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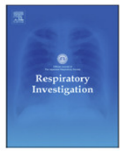

Original article

All-case post-marketing surveillance of 1371 patients treated with pirfenidone for idiopathic pulmonary fibrosis

Takashi Ogura[a,], Arata Azuma[b], Yoshikazu Inoue[c], Hiroyuki Taniguchi[d], Kingo Chida[e], Masashi Bando[f], Yuka Niimi[g], Shinichi Kakutani[h], Moritaka Suga[i], Yukihiko Sugiyama[f], Shoji Kudoh[j], Toshihiro Nukiwa[j]*

1. Introduction

Idiopathic pulmonary fibrosis (IPF) is a progressive fibrotic lung disease. The median survival of patients with IPF is 2–5 years because of limited treatment options [1–3]. Pirfenidone, an oral drug with anti-fibrotic, anti-inflammatory, and anti-oxidant activities, is the first drug approved for IPF treatment, which was approved in 2008 in Japan, in 2011 in the European Union, and in 2014 in the United States. The clinical efficacy and tolerability of pirfenidone in mild-to-moderate IPF were confirmed in two placebo-controlled, randomized clinical trials in Japan [4,5] and two concurrent multinational randomized trials (the CAPACITY program) [6]. A Cochrane meta-analysis of pirfenidone, including these three key clinical trials, demonstrated that pirfenidone reduced the risk of disease progression by 30% [7]. In addition, the ASCEND trial demonstrated that pirfenidone therapy significantly retarded disease progression [8].

To date, there is little information regarding the tolerability and efficacy in patients with severe IPF, although two small studies have been conducted with patients in advanced stages [9,10]. In Japan, pirfenidone is approved for mild-to-severe IPF treatment. Moreover, the medical expenses of patients with severe IPF are covered by the Japanese government according to the Japanese Respiratory Society (JRS) severity grading criteria (i.e., IPF staging) (Table S1 in the Supplementary Material) [5]; subsidies are only provided to patients with disease stages III–IV. Therefore, we anticipated that more patients with severe IPF would receive pirfenidone in Japan, presenting an unique opportunity to investigate the tolerability and efficacy of pirfenidone in patients with severe IPF.

Under the direction of the Japanese regulatory authority, we conducted a post-marketing surveillance (PMS) of all patients who initiated pirfenidone treatment in the first year after its launch in Japan. The primary objective of this study was to analyze pirfenidone clinical safety. Furthermore, the clinical courses of patients on pirfenidone in a real-world observational setting were assessed.

Como avaliar um artigo

✓ A secção dos métodos é a parte mais importante na avaliação de um artigo, pois contém a informação que permite ao leitor inferir sobre a validade dos resultados e das conclusões descritas.

- ✓ descrição clara e rigorosa de como o estudo foi realizado
- ✓ explicação das escolhas dos materiais e métodos
- ✓ características do desenho do estudo

Como avaliar um artigo

Embora os métodos devam ser descritos de forma clara e concisa, deverá no entanto conter a informação suficiente que permita:

(1) Replição do estudo, permitindo aferir a reproductabilidade dos resultados

(2) Avaliação dos resultados e conclusões por parte dos leitores

Como avaliar um artigo

1. Desenho do estudo
2. Selecção dos participantes — critérios e métodos de selecção
3. Colecta de dados — vareáveis, métodos e instrumentos
4. Análise de dados

Como avaliar um artigo

2. Selecção dos participantes — critérios e métodos de selecção

a. Critérios de selecção

b. Métodos de selecção dos participantes (amostra)

c. Processo de recrutamento

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Como avaliar um artigo

ESTABLISHED IN 1812 OCTOBER 17, 2013 VOL. 369 NO. 16

Tiotropium Respimat Inhaler and the Risk of Death in COPD

METHODS

STUDY DESIGN AND OVERSIGHT

The study methods have been described in detail previously,[19] and the complete study protocol is available with the full text of this article at NEJM .org. The trial was performed in accordance with the provisions of the Declaration of Helsinki, and the study protocol and procedures were approved by relevant institutional review boards and ethics committees. All the patients provided written informed consent.

STUDY PATIENTS

Full inclusion and exclusion criteria have been reported previously[19] and are included in the protocol. In brief, we enrolled patients who were 40 years of age or older and who had received a clinical diagnosis of COPD, had at least 10 pack-years of smoking history, had a postbronchodilator ratio of the forced expiratory volume in 1 second (FEV_1) to the forced vital capacity (FVC) of 0.70 or less, and had an FEV_1 of 70% or less of the predicted value. Patients with concomitant

PROCEDURES

Randomization was based on permuted blocks of nine, stratified according to center. Each patient received one of two possible Respimat inhalers: either 1.25 μg or 2.5 μg per inhalation, and a HandiHaler device; in each case, one of the inhalers held active medication and the other one contained placebo. Thus, patients received tio-

OUTCOME MEASURES

The primary safety outcome was the time to death from any cause, which was used to calculate the proportional-hazards ratio, or relative risk of death, between groups. The primary efficacy outcome was the risk of the first COPD exacerbation. COPD exacerbations were defined as the worsening of two or more major respiratory symptoms (dyspnea, cough, sputum, chest tightness, or wheezing) with a duration of at least 3 days requiring specified

STATISTICAL ANALYSIS

We used a Cox proportional-hazard model (with no covariate adjustment) to perform the primary analyses, using a hierarchical analysis plan. The comparisons were tested in the following order

We estimated that a target sample of 16,800 patients was required in order to observe 1266 deaths within 3.5 years of follow-up, assuming a power of 90% with a one-sided P value of 0.025

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Como avaliar um artigo

TISSUE ANTIGENS
IMMUNE RESPONSE GENETICS

Tissue Antigens ISSN 0001-2815

Annexin A11 gene polymorphism (R230C variant) and sarcoidosis in a Portuguese population

Genotyping

Genomic DNA from patients and controls was extracted from peripheral whole blood samples and collected in acid citrate dextrose (ACD) anticoagulant tubes, using either QIAsymphony or QIAmp DNA kits (Qiagen, Venlo, The Netherlands). DNA samples were genotyped for rs1049550 C/T (R230C) using a TaqMan SNPs genotyping assay (Applied Biosystems, Foster City, CA) according to the manufacturer's instructions. Minor groove binding probes were labeled with the fluorescent dyes fluorescein amidite (FAM) and VIC. Polymerase chain reaction was performed in a total reaction volume of 12.5 Kl with TaqMan Genotyping Master Mix 1×, 20 ng of genomic DNA and the SNP genotyping assay 1×. The amplification protocol began with a denaturation step at 95°C for 10 min, followed by 40 cycles of denaturation at 92°C for 15 s and annealing and extension at 60°C for 1 min. After polymerase chain reaction, the genotype of each sample was automatically determined by measuring allelic-specific fluorescence on the ABI PRISM 7000 Sequence Detection Systems using SDS 1.2 software for allelic discrimination (Applied Biosystems).

Statistical analysis

Allele and genotype distributions were statistically analyzed with the chi-squared test, or the Fisher exact test when appropriate. Relative risks or ORs with their 95% confidence intervals (CIs) were calculated as association measures. The software used was the STATCALC program (EpiInfo 2002, Centers for Disease Control and Prevention, Atlanta, GA). P-values of less than 0.05 were considered statistically significant. Annexin A11 allele frequencies in patients and controls were determined for each allele using the following formula: allele frequency $(\%) = (n/2N) \times 100$, where n indicates the sum of a particular allele and N indicates the total number of individuals. Deviations from the Hardy–Weinberg equilibrium were tested with ARLEQUIN v3 software (23) using the method described by Guo and Thompson (24).

Como avaliar um artigo

Resultados

Descrição clara, concisa e objetiva dos achados

- "Espelho dos métodos"
- Estrutura:
  - População incluída
  - Análise primária
  - Análise secundária
  - Achados inesperados e adicionais

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Como avaliar um artigo

Results

The distribution of *rs1049550* genotypes did not show any significant departure from the Hardy–Weinberg equilibrium, *P*-values for the exact test exceeded 0.05 in both patients and healthy controls groups. The frequency of the *rs1049550**T allele was significantly lower in sarcoidosis patients (33.2%) than in controls (44.9%) ($P < 0.001$, OR = 0.61, 95% CI = 0.45–0.82). The frequencies of annexin A11 alleles are summarized in Table 1. An OR of 0.52 and 0.44 for sarcoidosis was obtained, respectively, for the carriers of one (genotype CT) and two (genotype TT) copies of the *rs1049550**T allele, when compared with the CC wild-type genotype ($P < 0.001$). When the patients were divided into subgroups with ($n = 55$) and without ($n = 145$) Löfgren syndrome, we observed no significant differences in the frequency of the *rs1049550**T allele ($P = 0.37$). However, when these subgroups were compared with controls, only those without Löfgren syndrome had a significant decreased frequency of the allele (Table 2). No significant differences were observed between frequencies of *rs1049550*T* when patients were compared in terms of lung function impairment patterns and radiological stages (Scadding criteria). We did, however, observe a significant increase in the frequency of the T allele in patients with neutrophilia in BAL fluid (>3%; $n = 30$) (45 *vs* 31%, $P = 0.04$, OR = 1.58, 95%CI = 1.02–2.47) and this association persisted after adjustment to smoking habits and the presence of lung fibrosis. No significant associations were found between the presence of the *rs1049550**T allele and disease progression (resolution or chronicity) over a period of either 2 or 5 years (Table 3) or when the chronic stable ($n = 41$) or chronic unstable ($n = 42$) forms of the disease were compared (data not shown).

Como avaliar um artigo

Table 1 Association between annexin A11 *rs1049550 C/T* single nucleotide polymorphism and susceptibility to sarcoidosis[a]

	Sarcoidosis	Controls	OR	95% CI	*P*-value
Allele					
rs1049550 C	278 (66.8%)[b]	217 (55.1%)[b]	1		
rs1049550 T	138 (33.2%)[b]	177 (44.9%)[b]	0.61	0.45–0.82	<0.001
Total (2*n*)	416	394			
Genotype					
CC	99 (47.6%)	61 (31.0%)	1		0.001
CT	80 (38.5%)	95 (48.2%)	0.52		
TT	29 (13.9%)	41 (20.8%)	0.44		
Total (*n*)	208	197			

CI, confidence interval; OR, odds ratio.
[a]Allele frequencies of annexin A11 variants between patients and controls were compared using the chi-squared test; genotype frequencies were compared using the chi-squared test for trend normalized to the CC homozygotes (OR set to 1).
[b]Allele frequencies.

Table 2 Frequency of annexin A11 *rs1049550 C/T* single nucleotide polymorphism in patients with sarcoidosis according to presence or absence of Löfgren syndrome (LS)[a]

	Sarcoidosis			Sarcoidosis without LS *vs* controls			Sarcoidosis witht LS *vs* controls		
	With LS	Without LS	Controls	OR	95% CI	*P*-value	OR	95% CI	*P*-value
Allele									
rs1049550 C	70 (64%)[b]	198 (68%)[b]	217 (55.1%)[b]	1		0.001	1		0.11
rs1049550 T	40 (36%)[b]	92 (32%)[b]	177 (44.9%)[b]	0.57	0.41–0.79		0.76	0.53–1.07	
Total (2*n*)	110	290	394						
Genotype									
CC	25 (46%)	71 (49%)	61 (31.0%)	1		0.001	1		0.12
CT	20 (36%)	56 (39%)	95 (48.2%)	0.51			0.51		
TT	10 (18%)	18 (12%)	41 (20.8%)	0.38			0.6		
Total (*n*)	55	145	197						

CI, confidence interval; OR, odds ratio.
[a]Allele and genotype frequencies of annexin A11 variants between patients and controls were compared using the chi-squared test; genotype frequencies were compared using the chi-squared test for trend normalized to the CC homozygotes (OR set to 1). Eight patients were not included because the presence of Löfgren syndrome could not be confirmed.
[b]Allele frequencies.

Como avaliar um artigo

Table 4 Multivariate analysis of prognostic factors.

Factors	OR	%95 CI	*p*-Value
PFS			
DM	1.83	1.20–2.79	0.005
Stage	1.69	1.25–2.30	0.001
OS			
DM	2.38	1.48–3.81	<0.001
Stage	3.76	2.45–5.77	<0.001
Performance status	1.92	1.32–2.79	0.001

Inal A, Rev Port Pneumol 2013

Como avaliar um artigo

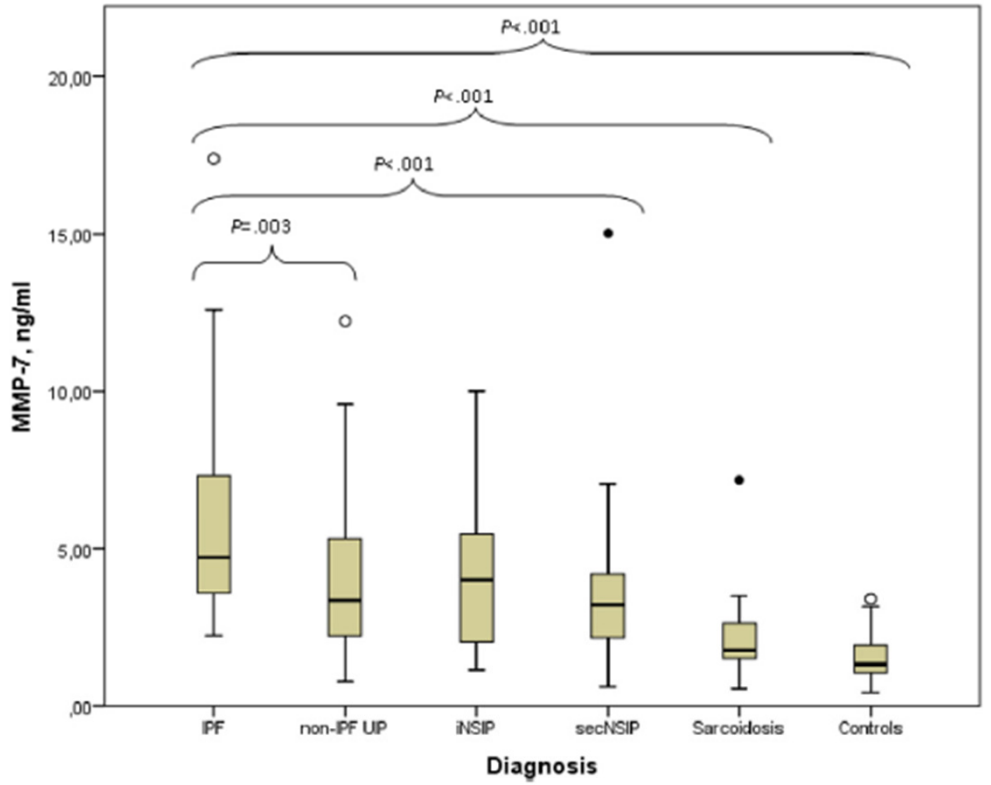
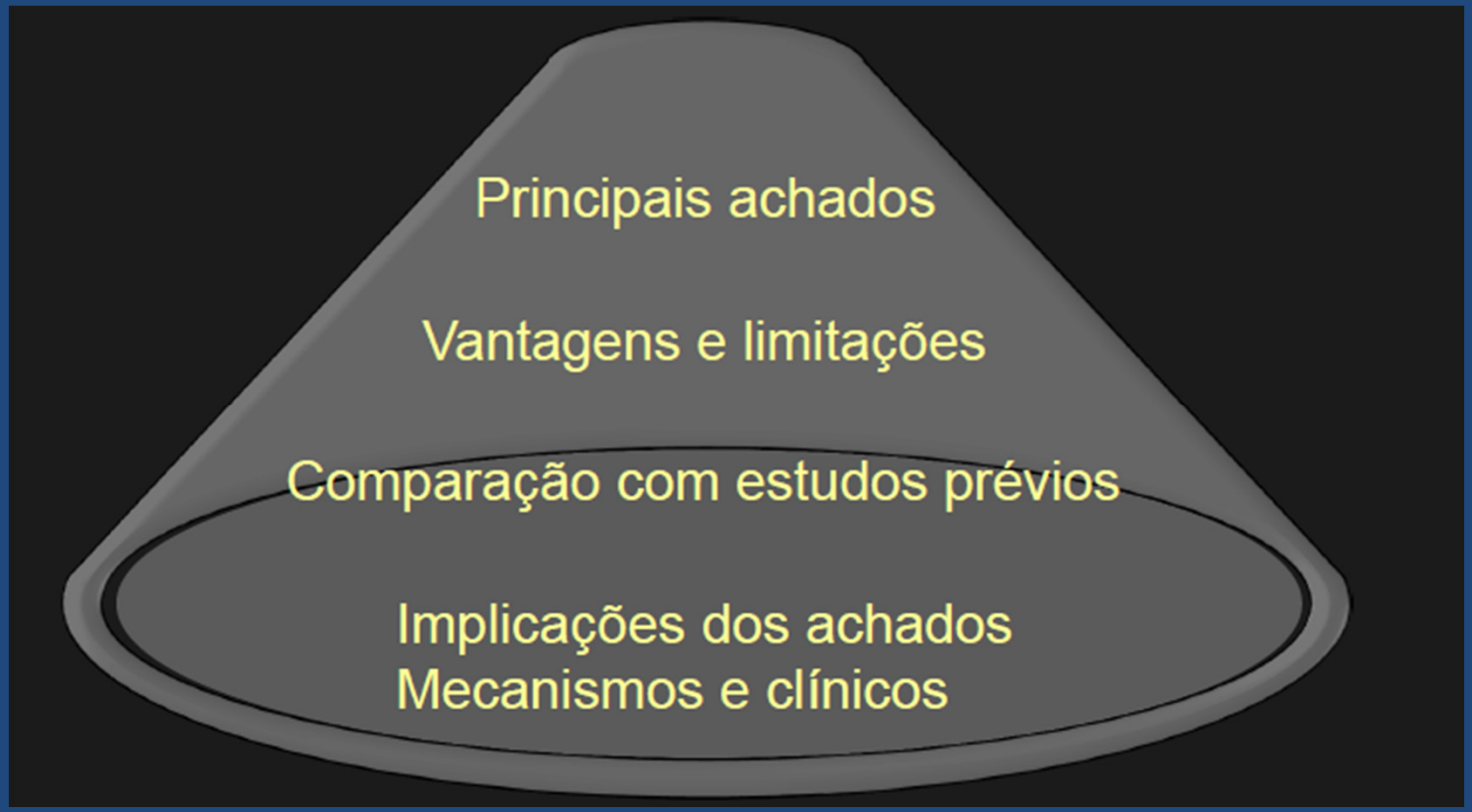


Fig. 2. White circles represent mild outliers and black circles represent extreme outliers. MMP-7 levels in patients and controls. Levels were significantly higher in IPF patients than in controls ($P < .001$), patients with non-IPF UIP ($P = .003$), secondary NSIP ($P < .001$), and sarcoidosis ($P < .001$). MMP indicates matrix metalloproteinase; IPF, idiopathic pulmonary fibrosis; non-IPF UIP, non-IPF usual interstitial pneumonia; iNSIP, idiopathic nonspecific interstitial pneumonia; secNSIP, NSIP secondary to a connective tissue lung disorder; UIP, usual interstitial pneumonia.

Como avaliar um artigo

Discussão



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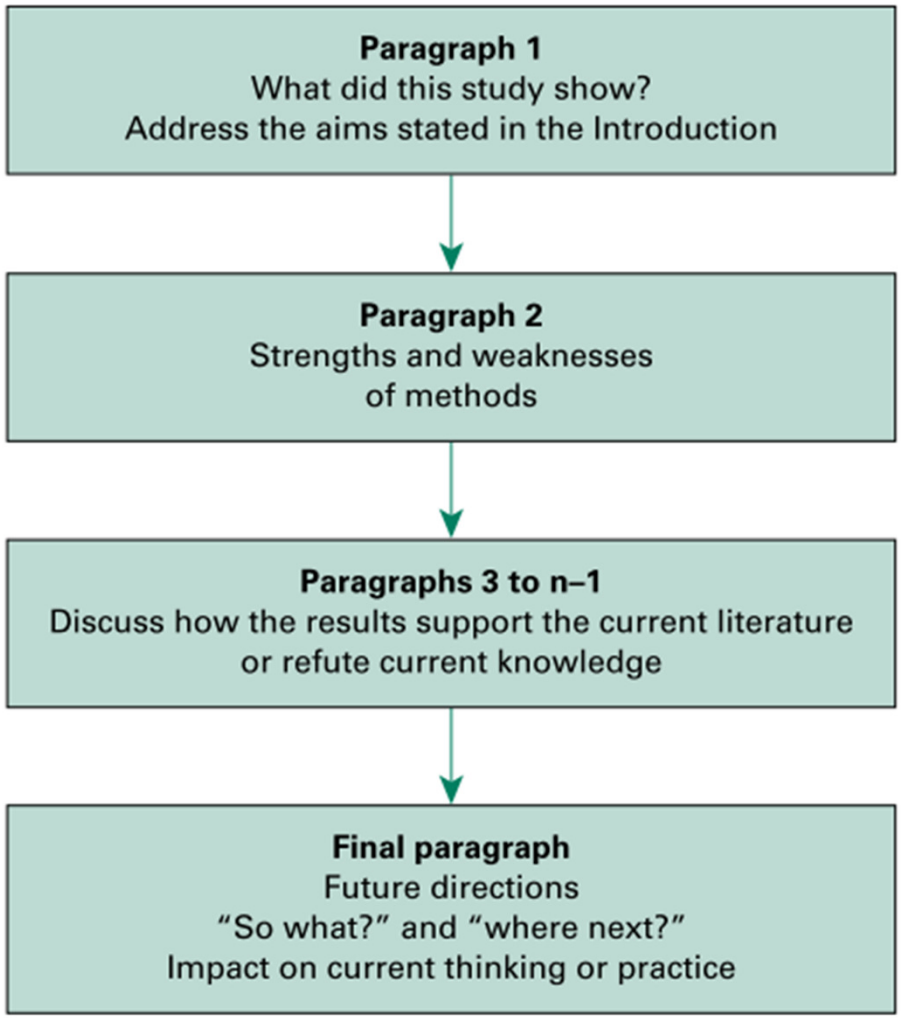

Peat J, Scientific Writing, 2002

Como avaliar um artigo

Referências:

- Reconhecer fontes
- Suportar a hipótese
- Demonstrar conhecimento do assunto
- Apenas as referências mais importantes e de maior qualidade
- Publicações *peer-review*

Como avaliar um artigo

Após a avaliação do artigo deverão ser colcocadas as seguintes questões:

- What specific problem does this research address? Why is it important?
- Is the method used a good one? The best one?
- What are the specific findings? Am I able to summarize them in one or two sentences?
- Are the findings supported by persuasive evidence?

Rev Port Pneum 2011

Como avaliar um artigo

- Is there an alternative interpretation of the data that the author did not address?
- How are the findings unique/new/unusual or supportive of other work in the field?
- What are some of the specific applications of the ideas presented here? What are some further experiments that would answer remaining questions?

Rev Port Pneum 2011