PARADOXICAL
T V C D

ANTONIO (T) YSUNZA M.D.
Ph.D.

BEAUMONT ROYAL OAK

GOALS

- P T V C D: WHAT IS IT ?
- DIAGNOSIS
- DIFFERENTIAL DIAGNOSIS
- PATHOPHYSIOLOGY
- TREATMENT – ACUTE
- TREATMENT – LONG TERM

MUNCHAUSEN STRIDOR

Really factitious ??

Munchausen Syndrome in DSM-5 =

Factitious Disorder

Factitious Disorder (DSM-5)

- A person with a factitious disorder intentionally produces, feigns or exaggerates the symptoms of a disease, illness or psychological condition with the aim of assuming the patient role. The motive varies but may include a desire to seek comfort and attention, attempt to gain access to drugs, or a fascination with the medical field. The sufferer may have a personality disorder and/or unresolved issues from childhood, such as physical or emotional abuse, or early detachment. These motives differ from those of malingering in which one fakes symptoms to gain disability payments or medical leave.

PARADOXICAL TRUE VOCAL CORD DYSFUNCTION

NOT A FACTITIOUS DISORDER !!

P T V C D

- **TRUE OR FICTION ?? > 40 NAMES HAVE BEEN USED :**
- **MUNCHAUSSEN STRIDOR**
- **EMOTIONAL LARYNGEAL WHEEZING**
- **EPISODIC LARYNGEAL DYSKINESIA**
- **EPISODIC PAROXYSMAL LARYNGOSPASM**

P T V C D

- FACTITIOUS ASTHMA
- FUNCTIONAL LARYNGEAL OBSTRUCTION
- FUNCTIONAL LARYNGEAL STRIDOR
- FUNCTIONAL UPPER AIRWAY OBSTRUCTION
- IRRITABLE LARYNX SYNDROME

P T V C D

- LARYNGEAL DYSKINESIA
- NONORGANIC UPPER AIRWAY OBSTRUCTION
- PARADOXICAL VOCAL CORD MOTION
- PERIODIC OCCURRENCE OF LARYNGEAL OBSTRUCTION
- PSEUDOASTHMA

P T V C D

- PSYCHOGENIC UPPER AIRWAY OBSTRUCTION
- SPASMODIC CROUP
- EXERCISE INDUCED LARYNGOSPASM
- VOCAL CORD DYSFUNCTION
- PARADOXICAL TRUE VOCAL CORD DYSFUNCTION

P T V C D

- P T V C D OR V C D
- FIRST USED IN N ENG J MED (1983) BY CHRISTOPHER ET AL.

P T V C D

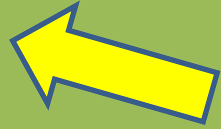
- **“GOLD STANDARD” DIAGNOSTIC MARKER : VIDEOLARYNGOSCOPY**
- **B U T . . .**

P T V C D

Dx MARKER	(+)	(-)
(+)	a	b
(-)	c	d

P T V C D

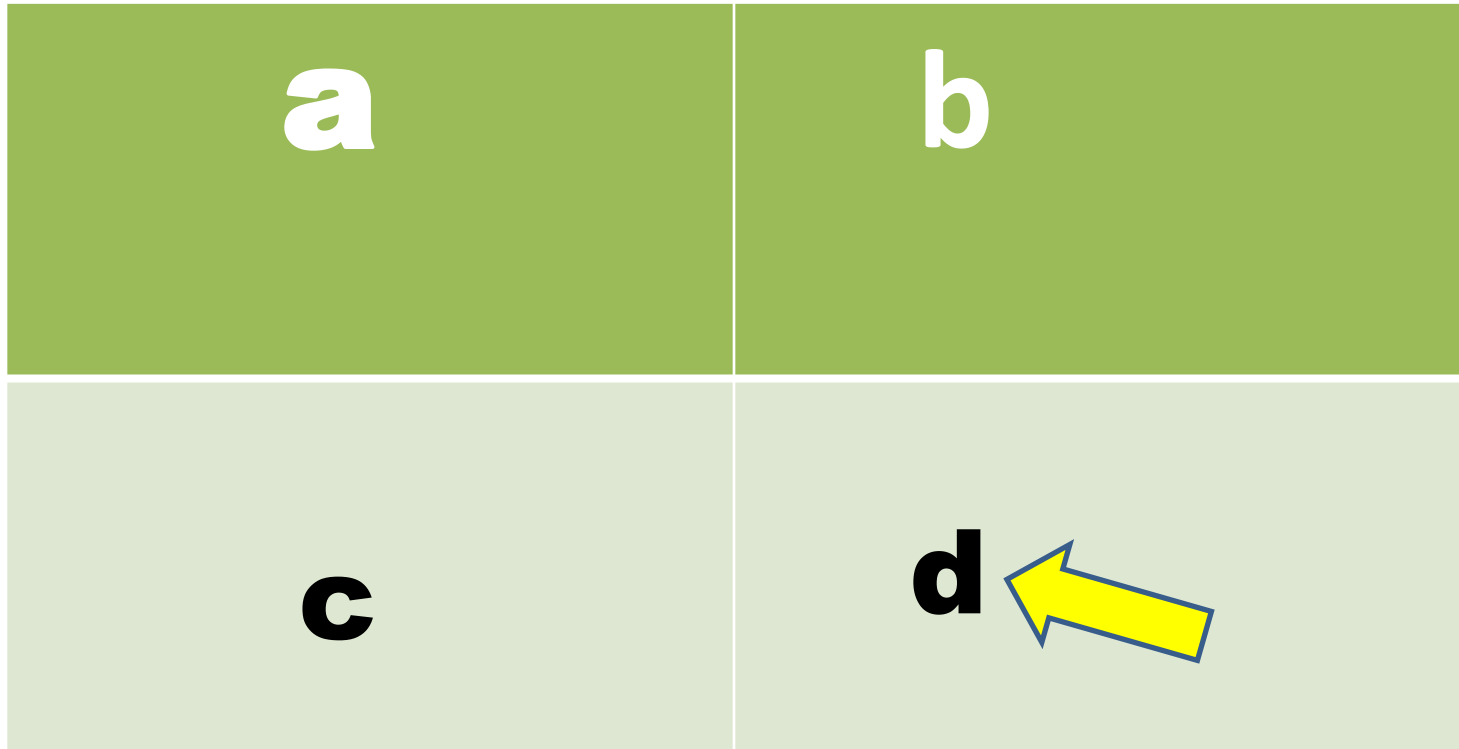
	(+)	(-)
Dx MARKER (+)	a	b
Dx MARKER (-)	c	d



TRUE POSITIVES

P T V C D

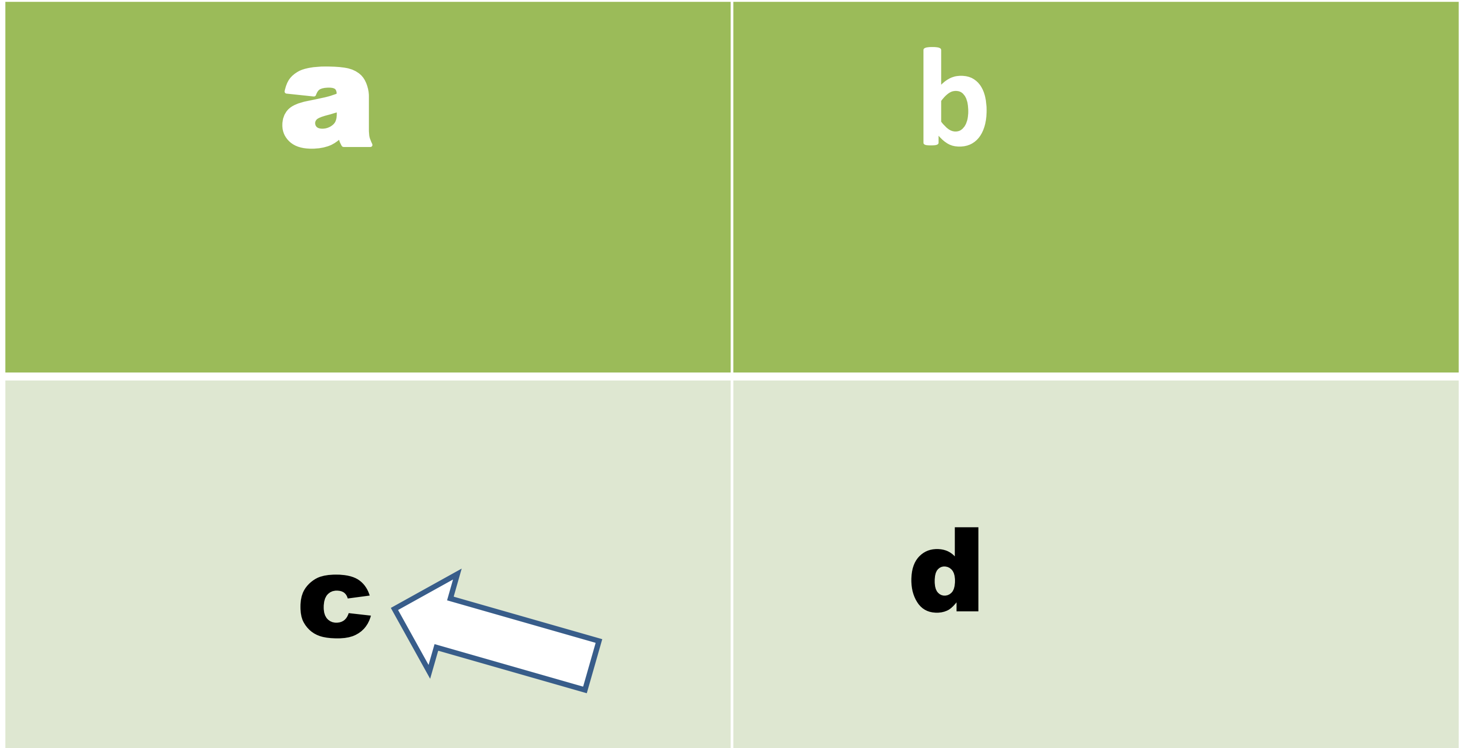
(+) (-)



TRUE NEGATIVES

P T V C D

(+) (-)

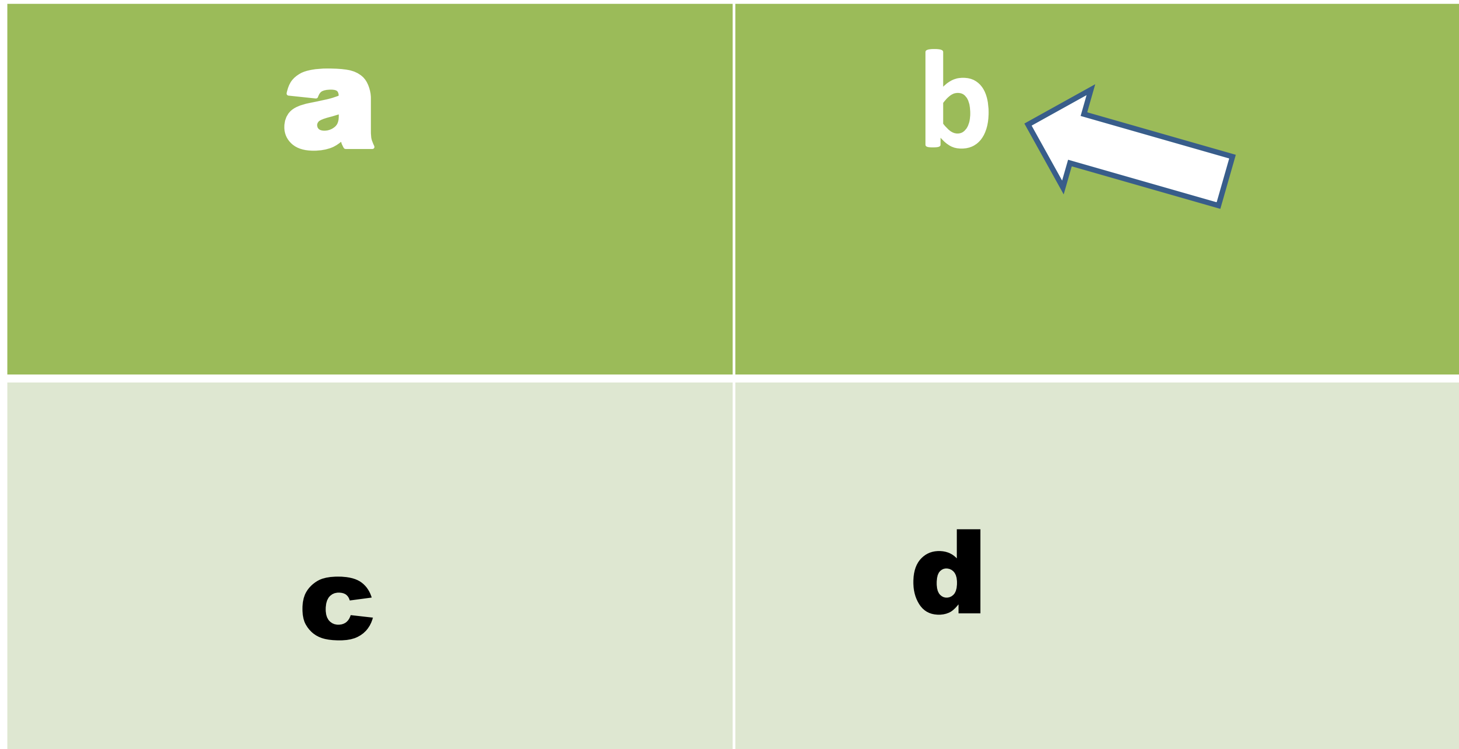


FALSE NEGATIVES

P T V C D

(+) (-)

Dx MARKER (+) (-)



FALSE POSITIVES

SENSITIVITY

- **a / a + c**
- ******FALSE POS. NOT COSIDERED**
- **Dx. MARKER WITH HIGH <u>SENSITIVITY</u> IS MOST USEFUL WHEN NEGATIVE (DETECTION OR SCREENING)**

SPECIFICITY

- **d / b + d**
- ******FALSE NEG. NOT COSIDERED**
- **Dx. MARKER WITH HIGH <u>SPECIFICITY</u> IS MOST USEFUL WHEN POSITIVE (CONFIRMATION)**

EXAMPLES

- **HIGH SENSITIVITY = ELISA (DETECT HIV POS.)**
- **HIGH SPECIFICITY = WESTERN BLOT (HIV); E E G ; ENDOSCOPY FOR P T V C D (BEST DX. MARKER BUT <u>NOT G S</u>**

DX. P T V C D

- **ENDOSCOPY = HIGHLY SPECIFIC BUT… <u>POOR SENSITIVITY</u>**
- **<u>USEFUL ONLY WHEN (+)</u>**

P T V C D

- **DIAGNOSTIC MARKER FOR INCREASING SENSITIVITY:**
  - **EXERCISE INDUCED FLEXIBLE V N P**
  - **> 50 % TVC ADDUCTION DURING INSPIRATION WITH STRIDOR**

- **TREADMILL**

DIFF. DX. P T V C D

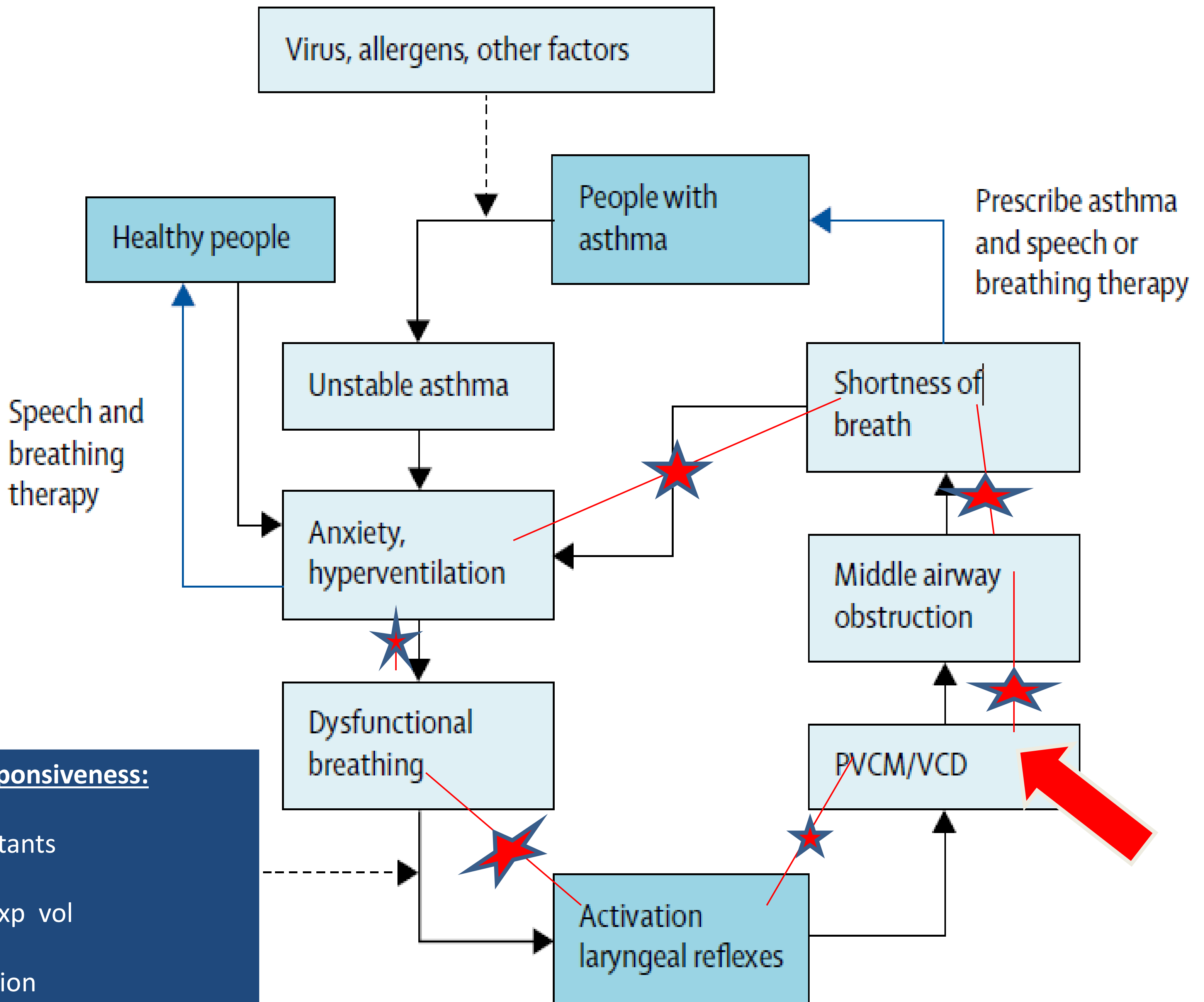
- ASTHMA
- ANGIOEDEMA
- AERODIGESTIVE FOREIGN BODY
- LARYNGEAL / PROXIMAL TRACHEA MASS

DIFF. DX. P T V C D

- BILATERAL V C PARESIS
- TRACHEAL / SUBGLOTTIC STENOSIS
- CROUP
- EPIGLOTTITIS / SUPRAGLOTTITIS

P T V C D

- **STRIDOR VS WHEEZING**
- **P T V C D ONLY W <u>STRIDOR –</u> ONLY DURING <u>INSPIRATION</u>**
- **SUSCEPTIBLE INDIV. ➡ ANXIETY DYSF. BREATHING ➡ ACT. LAR. REFLEXES.**
  <u>RECURRING CYCLE</u>



Laryngeal hyperresponsiveness:

1.Sinus disease
2.Reflux/inhales irritants

Other factors:

1.Reduced Forced exp vol
2.High BMI
3.Anxiety – Depression
4.Female gender

PTVCD
ACUTE MANAGEMENT

- **HELIOX (OXYGEN + HELIUM)**
- **NON-INVASIVE POSITIVE PRESSURE**
- **KETAMINE**

PTVCD
ACUTE MANAGEMENT

- **HELIOX = DECREASE RESISTANCE TO GAS FLOW WITHIN AIRWAY IMPROVING VENTILATION**
- **HELIOX (CYLINDER) = 79 % HELIUM; 21 % OXYGEN**

PTVCD LONG TERM MANAGEMENT

- **PRIMARY THERAPY : SLP – FA – PHONIATRIST**
- **OTHER OPTION: BOTOX**

PTVCD LONG TERM MANAGEMENT

- DETAILED HISTORY
- EXPLAIN STRIDOR AND WHEEZING
- EXPLAIN T V C FUNCTION AND DYSFUNCTION
- EXPLAIN PTVCD

PTVCD LONG TERM MANAGEMENT

- IDENTIFY TRIGGERS
- SNIFF – EXHALE TECHNIQUE
- DIAPHRAGMATIC BREATHING PATTERN

PTVCD LONG TERM MANAGEMENT

- REFLEXIVELY CONTROLLED LARYNGEAL MOTOR PATTERNS:
- <u>SNIFF</u> ⟵
- COUGH

PTVCD LONG TERM MANAGEMENT

- **SNIFF:**
- T V C ABDUCTION
- SIMULTANEOUS CONTRACTION OF ANTAGONISTS

PTVCD LONG TERM MANAGEMENT

- **EXHALE:**
- **NOT BLOWING**
- **PURSUED LIPS**
- **USE A STRAW**

PTVCD LONG TERM MANAGEMENT

- REDUCE ANXIETY
- COUNSELING

PTVCD LONG TERM MANAGEMENT

- IJPORL (2012): 1 – 4 TREATMENT VISITS.
- MEAN = 1.3 VISITS
- 86% = ONLY ONE VISIT
- ASSOC. W ASTHMA = 68%

PTVCD LONG TERM MANAGEMENT

- OUR NUMBERS:
- 2017 = 45 PATIENTS W DX OF TVCD
- 2 PATIENTS = NO TVCD
- TREATMENT VISITS: 1 – 3 VISITS
- 93 % ONLY ONE VISIT
- ASSOC W ASTHMA = 80 %

GRACIAS POR SU ATENCION !!

- antonio.ysunza@beaumont.edu

- ADDITIONAL INFORMATION
- REFERENCES
- COMMENTS
- DONATIONS
- GIFTS