Andrew Wakefield

Andrea Beer
Measles

- Highly contagious
- Caused by the measles virus
- Initial signs and symptoms
  - Fever (often greater than 40°C)
  - Cough/Bronchitis
  - Rhinitis
  - Conjunctivitis
- Koplik‘s spots
- Red, flat rash
- Complications (in ~30%)
  - Diarrhea
  - Blindness
  - Pneumonia
  - Otitis media
  - Encephalitis
- Infectious 4 days before to 4 days after start of rash
- No specific treatment
Measles

http://www.enzyklopaedie-dermatologie.de/bilder?id=4566

http://www.gesundheit.de/lexika/medizin-lexikon/koplik-flecken
Mumps

• = epidemic parotitis
• Highly contagious
• Caused by the mumps virus
• Initial signs and symptoms:
  – Fever
  – Muscle pain
  – Headache
  – Tiredness

• Painful swelling of one or both parotid glands

• Complications:
  – Meningitis
  – Pancreatitis
  – Permanent deafness
  – Painful testicular swelling

• No specific treatment
Mumps

http://www.stepwards.com/misc/mumps/
Rubella

- Caused by the rubella virus
- Often mild
- Maybe rash 2 weeks after exposure
- Symptoms:
  - Swollen lymph nodes
  - Fever
  - Sore throat
  - Fatigue

- Complications:
  - Bleeding problems
  - Testicular swelling
  - Inflammation of nerves
  - Infection during early pregnancy: congenital rubella syndrome or miscarriage
Measles, mumps and rubella vaccine

- Mixture of live attenuated viruses of the 3 diseases
- Combination since 1963

- Adverse reactions:
  - 10%: fever, mailaise, rash (5-21 days after the first vaccination), joint pain
  - Anaphylaxis: extremely rare

Autism

- Neurodevelopmental disorder
- Heritable
- Boys: girls = 4-5:1
- 1-2/1000 worldwide

- Impaired social interaction, verbal and non-verbal communication
- Restricted interests and repetitive behavior

- Diagnostic criteria:
  - Manifestation of symptoms in early childhood (<3 years)
Crohn’s disease

• Type of inflammatory bowel disease
• May affect any part of the GI-tract
• 3.2/1000 in Europe and USA

• Symptoms:
  – Abdominal pain
  – Diarrhea
  – Fever
  – Weight loss

http://www.naspghan.org/content/99/en/stomach
Andrew Jeremy Wakefield (*1956)

• British former surgeon and medical researcher

• Married, 4 children

http://vaxinfostarthere.com/andrew-wakefield-timeline/
Timeline

– studied medicine at St Mary's Hospital Medical School

– 1985:
  • became fellow of the Royal College of Surgeons

– 1986-1989:
  • University of Toronto

– 1990-2001:
  • Royal Free Hospital, London
Timeline

– 1993:
  • Published report: measles virus might cause Crohn's disease

– 1995:
  • Approach by Rosemary Kessick

– 1996:
  • Research on possible connections between MMR vaccine and autism

– During MMR research study
  • Senior lecturer and honorary consultant in experimental gastroenterology at the Royal Free Hospital School of Medicine
• February 28th, 1998

- Fraudulent research paper in „The Lancet“

- Link between MMR-vaccine administration and appearance of autism and Crohn’s disease
The fraudulent 
„The Lancet“-Paper

• Wakefield & 12 other authors

• About 12 children with autism

• New syndrome: „autistic enterocolitis“

“We identified associated gastrointestinal disease and developmental regression in a group of previously normal children, which was generally associated in time with possible environmental triggers”
The press conference

• Before publication
• Called for suspension of the MMR vaccine until more research could be done

"If you give three viruses together, three live viruses, then you potentially increase the risk of an adverse event occurring, particularly when one of those viruses influences the immune system in the way that measles does."
Consequences

• Decline in vaccination rates in the United States, United Kingdom and Ireland

UK: 92% → 73%
  1998: 56 measles cases
  2008: 1348 cases, 2 confirmed deaths

US: 125 000 children born in the late 1990s did not get the MMR vaccine

• Climate of distrust of all vaccines
  → Reemergence of other previously controlled diseases
Brian Deer

- Sunday Times reporter
- Investigation in 2004 and 2006
  - Undisclosed financial conflicts of interest
  - 2004: Public statement by The Lancet

Deer‘s findings

• Children with autism were subjected to unnecessary invasive medical procedures
• Acted without required ethical approval
• Nicholas Chadwick had failed to find measles virus in the children reported on in *The Lancet*
• Wakefield planned a rival vaccine and products (such as a diagnostic kit based on his theory)
• Wakefield ignored laboratory data that conflicted with his hypothesis
• Interpretation:
  – We identified associated gastrointestinal disease and developmental regression in a group of previously normal children, which was generally associated in time with possible environmental triggers.

• Retraction statement:
  – We wish to make it clear that in this paper no causal link was established between (the) vaccine and autism, as the data were insufficient. However the possibility of such a link was raised, and consequent events have had major implications for public health. In view of this, we consider now is the appropriate time that we should together formally retract the interpretation placed upon these findings in the paper, according to precedent.
Survey

• June 2005
  – BBC programme Horizon
    • 100 children with and 200 without autism
      – 99% of the blood samples contained no trace of the measles virus
      – the samples that did contain the virus were just as likely to be from non-autistic children

• Investigations and reviews
British General Medical Council (GMC)

- **2007-2010:**
  - Conducted inquiry against Wakefield and two former colleagues

- **January 28th, 2010**
  - Five-member statutory tribunal of the GMC
    - found three dozen charges proved, including four counts of dishonesty and 12 counts involving the abuse of developmentally challenged children
• February 2nd, 2010
  – The Lancet fully retracted the publication from 1998 on basis of GMC‘s findings

• *The Lancet*‘s editor-in-chief Richard Horton: the paper was "utterly false" and the journal had been "deceived"
Timeline

• 2001: moved to the US
  – Joined Jeff Bradstreet at the International Child Development Ressource Center
• 2004: Wakefield helped to establish and served as the executive director of „Thoughtful House Center for Children“
  – Studies autism in Austin, Texas
    • Resigned in February 2010

• 2010: Barred from practising as a physician in the UK
  – Not licensed in the US

• Set up non-profit Strategic Autism Initiative
• Director of companies „Medical Interventions for Autism“ and „Autism Media Channel“
Autobiography (2010)

http://www.callous-disregard.com/
• January 2011
  – editorial accompanying an article by Brian Deer in BMJ identified Wakefield's work as an "elaborate fraud"

• November 2011
  – Report in BMJ by Brian Deer revealed original raw data
“How the case against the MMR vaccine was fixed”
(2011, BMJ)

1) 3/9 reported with regressive autism did not have autism diagnosed at all. Only one child clearly had regressive autism

2) 5 with documented pre-existing developmental concerns

3) records documented behavioural symptoms as starting some months after vaccination

4) 9 cases with unremarkable colonic histopathology results

5) Patients were recruited through anti-MMR campaigners
• Wakefield has continued to defend his research and conclusions

• February 2015
  – Wakefield publicly repeated his denials and refused to back down from his assertions
Vaxxed

• Documentary film directed by Wakefield (2016)

• Withdrawal from New York‘s 2016 Tribeca Film Festival