

Vulval Cancer – Trends and Variations by Age

Introduction

In England, as in several other countries worldwide, vulval cancer is one of the rarer cancers in women. It is the fourth most common type of gynaecological cancer following endometrial, ovarian and cervical cancer. In 2010, there were almost 1,000 new cases and over 300 deaths from vulval cancer nationally. Evidence highlights that trends in incidence, mortality and survival differ by age. This briefing looks at these variations.

KEY MESSAGE:

Vulval cancer is one of the rarer cancers that affect women. In 2010, there were almost 1,000 new cases and over 300 deaths. It is a disease that primarily affects older women.

Over the last 20 years incidence has increased slightly and mortality had decreased. Since 1990, one- and five-year survival has improved. These trends were more apparent in particular age-groups.

Overall Trends

Overall, the incidence of vulval cancer (ICD C51) increased by 18% from 1990-92 to 2007-09 (2.1 to 2.5 per 100,000 female population), while mortality rates decreased by 25% from 1990-92 to 2008-10 (0.9 to 0.6 per 100,000) (Figure 1). Since 1990-92, relative survival improved by around 8%, to 85% in 2007-09 for one-year survival and to 70% in 2003-05 for five-year survival (both $P < 0.001$).

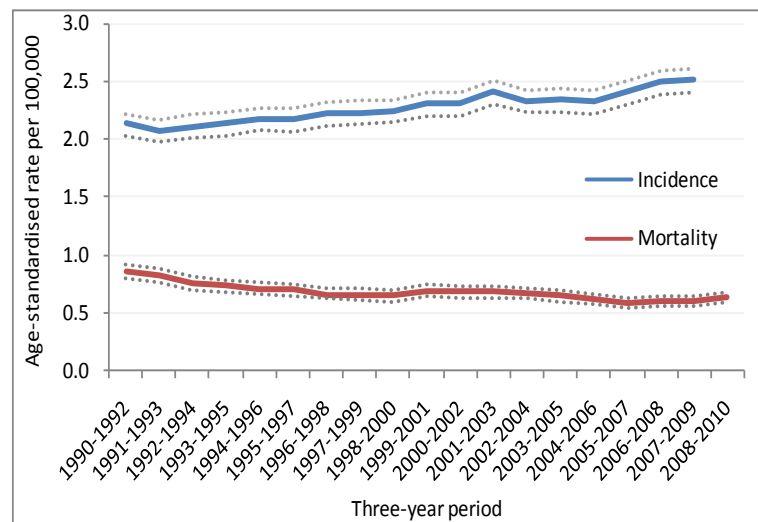


Figure 1 Age-standardised incidence and mortality rates, England 1990-92 to 2008-10.

Differences by Age

Table 1 Trends in the age-specific incidence rate per 100,000 female population, 1990-92 to 2007-09.

Period	20-39	40-49	50-59	60-69	70-79	80+
1990-1992	0.47	1.18	2.23	5.02	11.9	24.8
1992-1994	0.40	1.18	2.22	5.04	11.9	24.7
1994-1996	0.44	1.40	2.29	5.33	11.8	24.2
1996-1998	0.40	1.71	2.40	5.34	12.0	23.5
1998-2000	0.48	1.80	2.73	5.10	11.8	22.6
2000-2002	0.50	1.95	2.88	5.63	11.6	21.4
2002-2004	0.45	1.92	2.93	6.03	11.2	21.9
2004-2006	0.49	2.14	3.38	5.55	10.6	20.3
2005-2007	0.58	2.24	3.59	5.59	11.2	19.9
2006-2008	0.57	2.32	3.59	6.00	11.4	21.2
2007-2009	0.57	2.36	3.69	5.96	11.2	22.2

Over half (58%) of all new diagnoses in 2007-09 were in women aged over 70 (Table 1). Trends over time show that the incidence of vulval cancer has increased in women aged under 70 and decreased in women aged 80 and above. Rates doubled for women in their 40s and increased by 65% for women in their 50s. The increase in overall incidence is therefore attributed to the rise in younger women.

Table 2 Trends in the age-specific mortality rate per 100,000 female population, 1990-94 to 2006-10.

Period	20-39	40-49	50-59	60-69	70-79	80+
1990-1994	0.03	0.12	0.59	1.6	5.1	15.4
1992-1996	0.03	0.14	0.49	1.5	4.5	14.3
1994-1998	0.02	0.11	0.34	1.5	4.4	13.4
1996-2000	0.02	0.14	0.44	1.3	4.3	12.4
1998-2002	0.03	0.17	0.51	1.3	4.2	12.1
2000-2004	0.04	0.22	0.59	1.3	3.9	12.4
2002-2006	0.04	0.19	0.53	1.2	3.7	12.0
2003-2007	0.04	0.16	0.49	1.2	3.7	11.8
2004-2008	0.04	0.18	0.51	1.2	3.6	11.7
2005-2009	0.04	0.15	0.47	1.2	3.5	11.1
2006-2010	0.05	0.15	0.52	1.2	3.5	11.6

Between 2006 and 2010, over 80% of deaths occurred in women aged over 70. Mortality decreased in women aged 60 and above. Mortality decreased by 30% for women in their 70s and by 25% for women aged 80 and over. However, since 1990-94 the mortality rate has increased in women aged under 50 (Table 2).

Both one- and five-year relative survival decreased with increasing age. In 2007-09, one-year survival was above 90% for women aged under 60, which decreased to 72% in women aged 80 and above. Similarly, five-year survival was above 75% in women aged under 60, which decreased to 56% in women aged 80 and above (Figure 2). Since 1990-94, increases were observed for one-year survival for women aged 40 and above and five-year survival in women aged 40-49 and 60 and above (Figure 3).

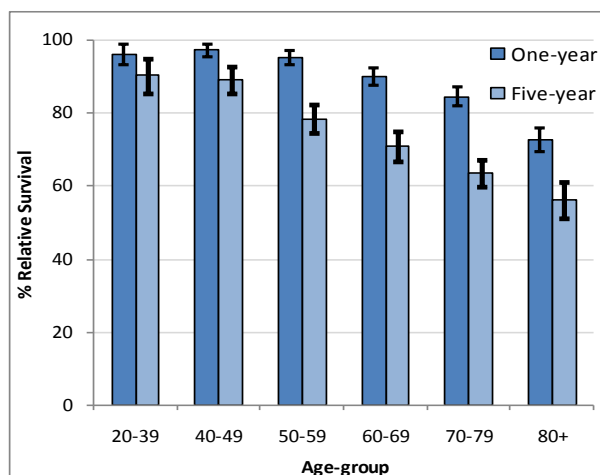


Figure 2 Age-specific one-year (2005-09) and five-year (2001-05) relative survival

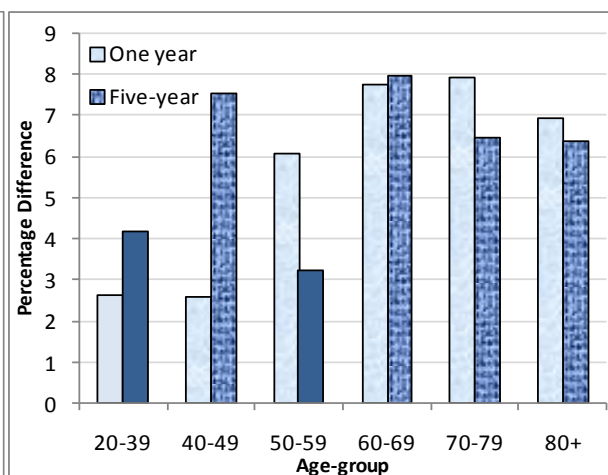


Figure 3 Since 1990-94, absolute percentage change in one-year (to 2005-09) and five-year (to 2001-05) relative survival by age group. Textured blue indicates statistically significant increase.

Vulval Cancer in Younger Women

Increased incidence in younger women is associated with improved diagnosis as a result of the centralisation of cancer services¹. Human Papilloma Virus (HPV) is associated with a number of cancers (for instance cervical² and anal³ cancers) and is associated with vulval cancer particularly in younger women⁴. HPV is also associated with a precursor to vulval cancer; Vulval Intraepithelial Neoplasia (VIN)⁵ the prevalence of which has also been reported to have increased⁶. Therefore, increases in the number of cases diagnosed in younger women may specifically highlight a rise in HPV associated vulval cancers. Survival may be better in younger women as they often present with earlier stage disease.

Vulval Cancer in Older Women

Compared to younger women, higher mortality rates and poorer survival may be associated with more aggressive disease therefore later stage at diagnosis in older women. Yet, over time, decreased incidence rates in older women may be related to decreases in risk factors other than HPV, such as lichen sclerosus⁷. As observed with other cancer sites, over time decreased mortality and increased survival is associated with improvements in earlier diagnosis and better treatment of vulval cancers. Despite these improvements, the burden of this disease still lies mainly with older women.

Recommendations

Actions should target increasing symptom awareness to detect pre-cancerous/early stage disease, reducing the need for more aggressive treatment. As localised disease is more amenable to treatment, improvements in the early diagnosis of vulval cancers and pre-cancerous conditions may reduce mortality rates and improve survival, particularly in older women. We anticipate that the HPV vaccine will reduce the incidence of vulval cancer over the coming decades.

Further Information

This briefing summarises the key findings in a paper published in the British Journal of Gynaecology (BJOG). For information on the methods used please see the journal paper which can be found at <http://onlinelibrary.wiley.com/doi/10.1111/1471-0528.12459/abstract>

References

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7. Scurry J, Flowers L, Wistuba I et al. Human papillomavirus, lichen sclerosus and vulvar squamous cell carcinoma. Int J Gynecol Cancer: 1998;8(4):298-306.

FIND OUT MORE:

Public Health England Knowledge and Intelligence Team (KIT) for East Midlands (formerly Trent Cancer Registry)
The East Midlands KIT is the NCIN lead for gynaecological cancers
<http://www.empho.org.uk/tcr/aboutUs.aspx>

Other useful resources:

What cancer statistics are available, and where can I find them? - <http://ncin.org.uk/view?rid=2494>

The National Cancer Intelligence Network (NCIN) is a UK-wide partnership operated by Public Health England. The NCIN coordinates and develops analysis and intelligence to drive improvements in prevention, standards of cancer care and clinical outcomes for cancer patients.